



DRAFT

ENVIRONMENTAL IMPACT REPORT

1045 Olive Project

Environmental Case: ENV-2016-4630-EIR
State Clearinghouse No.: 2017121047

Project Location: 1033 - 1057 S. Olive Street, Los Angeles, CA 90015

Community Plan Area: Central City

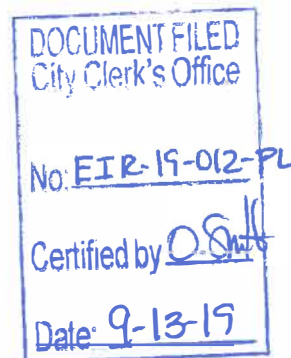
Council District: 14 - Huizar

Project Description: The 1045 Olive Project (Project) involves the construction and operation of a 70-story mixed-use high-rise development, with up to 751,777 square feet of floor area on a 0.96-acre site. The Project would include up to 794 residential units, 12,504 square feet of ground-floor commercial (restaurant/retail) uses, a ground-floor public plaza, and residential open space amenities. A 61-story residential tower would sit atop a nine-level podium structure, with a total building height of up to 810 feet. Eight above-ground levels of automobile parking would be located within the nine-level podium structure and would be partially wrapped with residential units. The Project would also have six subterranean levels of parking (depth of 64 feet) and would require the excavation and export of approximately 80,520 cubic yards of soil. Five existing single-story commercial buildings containing 35,651 square feet of floor area would be removed from the Project Site. The Project is a certified Environmental Leadership Development Project (ELDP).

PREPARED FOR:
The City of Los Angeles
Department of City Planning

PREPARED BY:
ESA

APPLICANT:
1045 Olive, LLC



September 2019

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EXECUTIVE SUMMARY

The purpose of this Draft Environmental Impact Report (EIR) is to inform decision-makers and the general public of the potential environmental impacts resulting from the proposed 1045 Olive Project (Project). The Project will require certain discretionary approvals by the City and other governmental agencies; and is subject to environmental review requirements under the California Environmental Quality Act (CEQA). The Project qualifies for consideration as an Environmental Leadership Development Project (ELDP) under the Environmental Leadership Act of 2011 (Assembly Bill [AB] 900, as amended by SB 743 (2013) and SB 734 (2016), which is codified in Sections 21178 – 21189.3 of the California Public Resources Code). This act established specified procedures for the judicial review of the EIR for development projects that are certified by the Governor as ELDP.

As described in Section 15123(a) and 15362 of the CEQA Guidelines, an EIR is an informational document that will inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize any significant effects, and describe reasonable project alternatives. Therefore, the purpose of this Draft EIR is to focus the discussion on the Project's potential environmental effects that the City of Los Angeles (City), as the Lead Agency, has determined to be, or potentially may be significant. In addition, feasible mitigation measures are recommended, when applicable, that could reduce or avoid the Project's significant environmental impacts.

This chapter of the Draft Environmental Impact Report (EIR) is prepared in accordance with State CEQA Guidelines Section 15123, and provides a brief description of the Project; the CEQA review process; describes areas of controversy known to the Lead Agency and issues to be resolved; identifies significant and unavoidable effects; summarizes alternatives to the Project; and provides a table summarizing Project impacts, Project Design Features and mitigation measures, and the level of impact significance following implementation of mitigation measures .

1. Project Location

The Project Site is located at the northwest corner of Olive Street and 11th Street in the Central City Community Plan area of the City. The Project Site is served by a network of regional transportation facilities that provide access to the greater metropolitan area. It is located approximately 1,360 feet from the entrance to the Pico Boulevard Station that provides rail service to the Los Angeles County Metropolitan Transportation Authority (Metro) Blue and Expo Lines; and approximately 2,700 feet from the 7th Street/Metro Center Station that provides rail service to the Blue, Expo, Red and Purple Lines. It also lies adjacent to multiple bus and shuttle lines in the immediate vicinity; and it is located

approximately 0.6 miles north of the Santa Monica Freeway (I-10) and 0.6 miles east of the Harbor Freeway (I-110).

The 0.96-acre (41,603 square foot) Project Site lies within the southeast quadrant of the block that is surrounded by Olive Street on the east, 11th Street on the south, Grand Avenue on the west and Olympic Boulevard on the north. The block is split by a south to north alley at midblock between Olive Avenue and Grand Avenue. The alley serves as the western boundary of the Project Site.

2. Proposed Project

1045 Olive, LLC (the Applicant) proposes the construction of an infill mixed-use development. The Project proposes an up to 751,777 square foot mixed-use high-rise development (Project), with a maximum of 794 residential units and up to 12,504 square feet of neighborhood serving commercial (restaurant/retail) uses.¹ The Project is composed of 61-story tower atop a nine level podium structure for a total of 70 floors above grade with a height of to 810 feet.² The Project would also have six subterranean levels. Approximately 100,652 square feet of open space would be provided for Project residents, and an additional 2,728 square feet of open space would be provided in a ground level public plaza with landscaping and public art for a total of 103,380 square feet of open space.

The Project's residential development would include a range of unit types, including: studios, 1- and 2-bedroom units (with and without dens), and 3-bedroom units. The residential units would be mostly located within the residential tower. Approximately 40 units would be located along the perimeter of the top five levels of the Podium facing Olive Street and 11th Street. The Project's 12,504 square feet of commercial (restaurant/retail) space would be located at the ground level. Access to the individual commercial units would be from 11th Street, Olive Street and the plaza. It is expected that a substantial amount of the commercial area would be devoted to restaurant uses.

Vehicle access (ingress/egress) would be provided from one entrance along Olive Street, near the northern property line, and from two entrances from the alley between 11th Street and Olympic Boulevard. An on-site loading and move-in/out service area would also be accessed from the alley. Vehicle parking would be provided within six (6) subterranean parking levels and in eight (8) partial levels of above-grade parking within the Podium.

¹ The Project area included here is based on the most recent Project Plans at the time the NOP was distributed. Subsequently, the Applicant has submitted plans to the City with a minor variation in the ground floor design resulting in a reduction in the amount of commercial (restaurant/retail) space to 10,947 square feet, a reduction of 1,557 square feet. This reduction would slightly reduce Project impacts from those reported in the analyses in this EIR. The number of residential units and total floor area has remained constant.

² The height to the top of the residential development, i.e. to the Tower Roof Terrace, is 770 feet. The 810 feet is the height to the top of the rooftop screening.

The Project would provide up to 891 vehicle parking spaces and up to 310 bicycle parking spaces, per requirements of the Los Angeles Municipal Code (LAMC).

3. Public Review Process

As described in more detail in Chapter I, *Introduction*, of this Draft EIR, the City circulated a Notice of Preparation (NOP) to State, regional, and local agencies, and members of the public for a 30-day review period, commencing December 21, 2017 and ending January 21, 2018. The NOP was based on an Initial Study, which determined that the Project had the potential to result in significant impacts to the environment. The NOP and Initial Study are provided in Appendices A-1 and A-2 of this Draft EIR.

In addition, a public scoping meeting was held on January 10, 2018, at 1057 S. Olive Street, Los Angeles, CA 90015. Scoping meeting materials, letters and comments received during the comment period, and comments received during the public scoping meeting are included in Appendices A-3 and A-4 of this Draft EIR.

This Draft EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for 48 calendar days. Any public agency or members of the public desiring to comment on the Draft EIR must submit their comments in writing, by U.S. mail and/or email, to the following address prior to the end of the public review period:

Mail: Milena Zasadzien
City of Los Angeles
Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, California 90012

Email: milena.zasadzien@lacity.org

After public review of the Draft EIR, a Final EIR will be prepared in response to comments received during the public review period. The Final EIR will consist of the Draft EIR, possible revisions or clarifications to the Draft EIR, comments submitted by responsible agencies and reviewing parties during the public circulation period for the Draft EIR, and City responses to significant environmental points raised in the review and consultation process. After the Final EIR is completed and at least 10 days prior to its consideration and certification by a decision-maker, the City shall provide a written response to a public agency on comments made by that public agency.

4. Areas of Controversy/Issues to Be Resolved

The following summarizes the environmental concerns raised in response to the NOP, including comments received at the public scoping meeting held during the NOP circulation period, and in written responses to the NOP. The public comments are included in Appendix A-4 and provide comment on the following general topics:

- Aesthetics of the building and recreational amenities;
- View impacts from nearby buildings, notably those associated with the Project's tower placement and spacing in relation to Ten50 Grand development adjacent to the Project Site;
- Cumulative construction traffic and noise impacts;
- Cumulative traffic impacts from recently constructed and approved development, notably along 11th Street;
- Use and capacity of the alley adjacent to the Project Site: location of garage entries, volumes of alley traffic, accommodation of moving vans and loading zones.

5. Significant and Unavoidable Environmental Impacts

Based on the analysis contained in Chapter IV, *Environmental Impact Analysis*, of this Draft EIR, the Project would result in significant and unavoidable impacts relating to project-level and cumulative construction noise.

6. Alternatives to Reduce Significant Impacts

The State CEQA Guidelines Section 15126.6(a) requires an EIR to “describe the range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” The State CEQA Guidelines emphasize that the selection of project alternatives should be based primarily on the ability to reduce significant impacts relative to the proposed project, “even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.”³ The State CEQA Guidelines further direct that the range of alternatives be guided by a “rule of reason,” such that only those alternatives necessary to permit a reasoned choice are analyzed.⁴ Based on an analysis of these alternatives, an environmentally superior alternative is identified.

Three alternatives, including an environmentally superior alternative, are analyzed in Chapter V, *Alternatives*, of this Draft EIR and summarized below. The alternatives analysis reviews a range of potential projects that might otherwise occur at the Project Site. They include the following:

³ State CEQA Guidelines, Section 15126.6(b).

⁴ State CEQA Guidelines, Section 15126.6(f).

a) Alternative 1: No Project/No Build Alternative – Existing Buildings with Increased Utilization Program

Alternative 1 consists of the circumstance under which the Project would not proceed, pursuant to Section 15126.6(e)(3)(B) of the State CEQA Guidelines. The No Project/No Build Alternative assumes that no new development would occur within the Project Site. The Project would not be developed, and utilization of the existing buildings on the Project Site would be increased to operate at a full rental capacity with uses similar to other street level store fronts in the Project vicinity.

b) Alternative 2: Reduced Density – FAR of 6:1 (No TFAR)

Alternative 2 would provide the same uses as the Project in a similar configuration to that of the Project with a residential tower located atop a podium with residential units and parking above street level commercial uses. The number of residential units would be reduced from 794 units to 300 units, and the ground-level commercial uses would be similar at 12,504 square feet of retail/restaurant uses. The Alternative would include a 20 floor residential tower located atop a five level podium with four levels of parking and street-level commercial uses, rising to 300 feet. It would also include one subterranean parking level. The Alternative would not exercise the purchase of development rights from a donor site through the application of transfer of floor area (TFAR) provisions. The Alternative would have a floor area ratio (FAR) of 6:1 in contrast to the Project's 13:1.

c) Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1 (No TFAR)

Alternative 3 would provide increased commercial uses at the ground level, with 25,000 square feet of retail/restaurant uses in contrast to the Project's 12,504 square feet. The Project would also include 315 Senior Housing units. The residential units would be included in a twelve story building with nine residential stories above one ground level of commercial activity and two above ground parking levels. The Alternative would also include three subterranean parking levels. The Alternative would not exercise the purchase of development rights from a donor site through the application of TFAR provisions. The Alternative would have an FAR of 6:1 in contrast to the Project's 13:1.

d) Environmentally Superior Alternative

Section 15126.6(e)(2) of the State CEQA Guidelines indicates that an analysis of alternatives to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR, and that if the "no project" alternative is the

environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining alternatives.

A comparison of the impacts between the Project and the three Alternatives analyzed in this Draft EIR is presented in **Table V-13, *Comparison of Impacts Between the Project and Each Alternative***, in Chapter V, *Alternatives*, of this Draft EIR. The conclusions reflected in Table V-13 have been used to identify the environmentally superior alternative.

Of the Alternatives analyzed in the Draft EIR, Alternative 1 would be considered to be the environmentally superior alternative because it is the only Alternative that would avoid the Project's significant construction noise impact. Further, Alternative 1 would generally have lower impacts regarding the other environmental topics. At the same time Alternative 1 would not achieve any of the Project Objectives.

Since Alternative 1 is the No Project Alternative, the identification of an environmentally superior alternative among the other alternatives is required. None of the remaining alternatives would reduce the Project's significant construction noise impact to a less than significant level. However, Alternative 2, with only one level of subterranean parking, would decrease the number of days in which the significant construction impact can occur, more so than would Alternative 3. In regard to traffic impacts, Alternative 3 would avoid the Project's pre-mitigation significant impacts during operation. Other impacts for Alternative 2 and Alternative 3 would generally be similar to one another and to the Project's impacts. Therefore, of the two Alternatives, Alternative 2, would be considered the environmentally superior alternative as it would have a greater effect in reducing the Project's significant construction noise impact and would reduce the Project's operational traffic impacts but still mirror the Project's beneficial traffic mitigation.

However, Alternative 2 would not include a transfer of floor area that enables the Project to provide the density, and particularly the floor area to support residential density in Downtown Los Angeles, as encouraged by goals and policies established by the Southern California Association of Governments (SCAG) and the City for focusing density in high quality transit areas and Transit Priority Areas (TPAs). Providing increased density in transit-rich areas supports other policy objectives to reduce vehicle miles traveled resulting in associated reductions in greenhouse gas (GHG) and air pollutant emissions, to improve the current jobs/housing balance, and to maximize the use of existing and planned transit and utility infrastructure. In sum, while Alternative 2 and Alternative 3 would have reduced impacts as compared to those of the Project, they would not provide the same reductions or efficiencies regarding impacts involving travel by passenger vehicles at the regional- and City-scale that the Project would provide. Further, Alternative 2 and Alternative 3 would not meet some of the Project Objectives and would only partially meet other objectives.

7. Summary of Environmental Impacts

This section provides a summary of impacts, Project Design Features, Mitigation Measures, and the level of impact after implementation of mitigation measures for each environmental topic evaluated in the Draft EIR, in **Table ES-1, *Summary of Project Impacts, Project Design Features, and Mitigation Measures***. A mitigation measure required to reduce impacts to less than significant levels for Biological Resources was scoped out of EIR analysis but included in the Initial Study, provided in Appendix A-2 of this Draft EIR. The topic and the mitigation measure are also included at the end of Table ES-1.

TABLE ES-1
SUMMARY OF PROJECT IMPACTS, PROJECT DESIGN FEATURES, AND MITIGATION MEASURES

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Draft EIR			
IV.A Aesthetics			
Threshold a) Would the project have a have a substantial adverse effect on a scenic vista?		No mitigation measures are required	Pursuant to SB 743, No Impact.
Threshold b) Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a City-designated scenic highway?	None	No mitigation measures are required	Pursuant to SB 743, No Impact.
Threshold c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	AES-PDF-1: Construction Fencing. The Project's security fencing along the W. 11 th Street, S. Olive Street, and the mid-block alley perimeters of the Project will be designed to screen views to the Project Site's ground levels during construction. The fencing shall have a minimum height of 8 feet; and the Applicant shall ensure through appropriate postings and regular visual inspections that no unauthorized materials are posted on temporary construction barriers or temporary pedestrian walkways, and that such temporary barriers and walkways are maintained in a reasonable manner throughout the construction period.	No mitigation measures are required	Pursuant to SB 743, No Impact.

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Threshold d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	AES-PDF-2: Parking Shielding: Podium parking will be shielded from adjacent areas with minimum 36-inch high baffling panels behind architectural screen meshing for aesthetic character as well as for light and sound attenuation.	No mitigation measures are required	Pursuant to SB 743, No Impact.
IV.B Air Quality			
Threshold a) Would the project conflict with or obstruct implementation of the applicable air quality plan?	AQ-PDF-1: Green Building Features: The Project will be designed to achieve the equivalent of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification level for new buildings. The Project will demonstrate compliance with the LEED Gold Certification or equivalent by providing architectural and engineering documentation, building energy modeling simulations, and other supporting evidence consistent with USGBC accepted documentation standards. Pre-construction documentation that indicates the Project is designed to achieve the number of points required for LEED Gold Certification will be provided to the City prior to building permit issuance. Post-construction documentation that indicates the Project operates within the expected parameters to achieve the number of points required for LEED Gold Certification will be provided to the City after completion of commissioning activities. A summary of key green		Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>building and LEED measures are provided below:</p> <ul style="list-style-type: none"> • The Project will implement a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris. • The Project will incorporate heat island reduction strategies for 50 percent of the site hardscapes or provide 100 percent structured parking and incorporate heat island reduction strategies, including but not limited to high-reflectance and vegetated roofs, for the Project roof areas. • The Project shall include at least twenty (20) percent of the total code required parking spaces provided for all types of parking facilities, but in no case less than one location, 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 ampacity. Of the 20 percent EV Ready, five (5) percent of the total code required 		

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>parking spaces shall be further provided with EV chargers to immediately accommodate electric vehicles within the parking areas. When the application of either the 20 percent or 5 percent results in a fractional space, round up to the next whole number. A label stating "EVCAPABLE" shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.</p> <ul style="list-style-type: none"> • The Project will optimize building energy performance including, but not limited to, installing energy efficient appliances. • The Project will reduce water consumption by 40 percent for indoor water and 50 percent for outdoor water compared to baseline water consumption. Water reduction strategies include, but are not limited to planting drought-tolerant/California native plant species, increasing irrigation system efficiency, incorporating alternative water supplies (e.g., stormwater retention for use in landscaping), and/or installing smart irrigation systems (e.g., weather-based controls). • The Project will provide on-site recycling areas with containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers. 		

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<ul style="list-style-type: none"> The residential units within the Project will not include the use of natural gas-fueled fireplaces. <p>AQ-PDF-2: Construction Equipment Features: The Applicant will implement the following construction equipment features for equipment operating at the Project Site. These features will be included in applicable bid documents, and successful contractor(s) must demonstrate the ability to supply such equipment. Construction features will include the following:</p> <ul style="list-style-type: none"> During plan check, the Project representative will make available to the lead agency and the South Coast Air Quality Management District (SCAQMD) a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used during any of the construction phases. The inventory will include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each such unit's certified tier specification, Best Available Control Technology (BACT) documentation, and California Air Resources Board (CARB) or SCAQMD operating permit shall be provided on-site at the time of mobilization of each applicable unit of equipment to allow the Construction Monitor to compare the on-site equipment with the inventory and certified Tier 		

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>specification and operating permit. Off-road diesel-powered equipment that will be used an aggregate of 40 or more hours during any portion of the construction activities associated with grading/excavation/export phase must meet the Tier 4 Final standards. Construction contractors supplying heavy duty diesel equipment greater than 50 horsepower will be encouraged to apply for SCAQMD Surplus Off-Road Opt-In for NOx (SOON) funds. Information including the SCAQMD website will be provided to each contractor which uses heavy duty diesel for on-site construction activities.</p> <ul style="list-style-type: none"> Equipment such as tower cranes and signal boards must be electric or alternative-fueled (i.e., non-diesel). Pole power will be made available for use for electric tools, equipment, lighting, etc. Construction equipment such as tower cranes and signal boards must utilize electricity from power poles or alternative fuels (i.e., non-diesel), rather than diesel power generators and/or gasoline power generators. If stationary construction equipment, such as diesel- or gasoline-powered generators, must be operated continuously, such equipment must be located at least 100 feet from sensitive land uses (e.g., residences, schools, childcare centers, hospitals, 		

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>parks, or similar uses), whenever possible.</p> <ul style="list-style-type: none"> Alternative-fueled generators (e.g., natural gas, battery electric, solar, etc.) that generate less NO_x and particulate matter emissions when compared to equivalent diesel-fueled models will be used when commercial models that have the power supply requirements to meet the construction needs of the Project are commercially available from local suppliers/vendors. The determination of the commercial availability of such equipment will be made by the City prior to the issuance of grading or building permits based on applicant-provided evidence of the availability or unavailability of alternative-fueled generators and/or evidence obtained by the City from expert sources such as construction contractors in the region. Alternative-fueled sweepers/scrubbers shall be used pursuant to SCAQMD Rule 1186.1. Contractors will maintain and operate construction equipment so as to minimize exhaust emissions. All construction equipment must be properly tuned and maintained in accordance with the manufacturer's specifications. The contractor must keep documentation on-site demonstrating that the equipment has been maintained in accordance 		

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>with the manufacturer's specifications. Tampering with construction equipment to increase horsepower or to defeat emission control devices must be prohibited.</p> <ul style="list-style-type: none"> Construction activities must be discontinued during second-stage smog alerts. A record of any second-stage smog alerts and of discontinued construction activities as applicable will be maintained by the Contractor on-site. 		
<p>Threshold b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?</p>	<p>AQ-PDF-1: Green Building Features AQ-PDF-2: Construction Equipment Features</p>	<p>AQ-MM-1: The Applicant shall implement the following measures to reduce the emissions of air pollutants generated by concrete trucks during the continuous concrete pouring phase lasting for approximately one day:</p> <ul style="list-style-type: none"> a. The contractor shall use concrete trucks with an average capacity of 10 cubic yards to minimize the number of concrete truck trips; b. The contractor shall use local concrete suppliers with 90 percent or more of the concrete supplied by one or more facilities located within a driving distance of approximately 4.5 miles per one-way trip (approximately 9 miles per round trip) and the remaining 10 percent from one or more facilities located within a driving distance of approximately 9 miles per one-way trip (approximately 18 miles per round trip). c. The contractor shall be required to ensure that approximately 50 percent 	<p>Less than Significant with Mitigation.</p> <p>Construction-related daily emissions would not exceed the SCAQMD numeric indicators of significance with the exception of short-term and temporary NO_x emissions during the one-day continuous concrete pour phase. All other emissions levels would be below the applicable numeric indicators. However, this impact would be reduced to a less than significant level with the implementation of the identified mitigation measure.</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>of the concrete truck trips, equivalent to approximately 19 concrete trucks per hour, are made by CNG-fueled concrete trucks or trucks that achieve the same or lower NO_x emissions as CNG-fueled concrete trucks.</p> <p>d. During plan check, the Project representative shall make available to the lead agency and SCAQMD a comprehensive inventory of all concrete trucks that will be used during the continuous approximately one-day concrete pouring phase. The inventory shall include the concrete truck capacity, fuel specification, and NO_x emissions rating. A copy of each such unit's certified emissions rating shall be provided on-site at the time of mobilization of each applicable unit of equipment to allow the Construction Monitor to compare the on-site equipment with the inventory and certified emissions specification.</p>	
Threshold c) Would the project expose sensitive receptors to substantial pollutant concentrations?	AQ-PDF-1: Green Building Features AQ-PDF-2: Construction Equipment Features	No mitigation measures are required	Less than Significant
Threshold d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
IV.C Cultural Resources			
Threshold a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	None	<p>CULT-MM-1: Prior to the issuance of a demolition permit, the Applicant shall retain a Qualified Archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards (Qualified Archaeologist). The Qualified Archaeologist will oversee an archaeological monitor who shall be present during construction activities on the Project Site, including demolition, clearing/grubbing, grading, trenching, or any other construction excavation activity associated with the Project. The activities to be monitored shall also include off-site improvements in the vicinity of the Project Site, such as utility, sidewalk, or road improvements. The monitor shall have the authority to direct the pace of construction equipment in areas of higher sensitivity. The frequency of monitoring shall be based on the rate of excavation and grading activities, the materials being excavated (younger sediments vs. older sediments), the depth of excavation, and, if found, the abundance and type of archaeological resources encountered. Full-time monitoring may be reduced to part-time inspections, or may be ceased entirely, if determined adequate by the Qualified Archaeologist. Prior to commencement of excavation activities, Archaeological Sensitivity Training shall be given to construction personnel at the pre-construction meeting and thereafter</p>	<p>Less than Significant with Mitigation.</p> <p>There is potential for subsurface historic and/or archaeological materials to be encountered during Project-related excavation. Project construction would result in deeper excavation, to approximately 64 feet below the ground's surface, than any of the prior documented excavations on-site. The Project will also include potential underground utility work and other improvements in the adjacent alley, where the Zanja No. 8, a potential historic resource, may be encountered. With implementation of these mitigation measures, the Project's direct potential impacts on historical resources would be reduced to a less than significant level.</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>when new staff are added to the Project. The training session shall be carried out by the Qualified Archaeologist, will focus on how to identify archaeological resources that may be encountered during earthmoving activities, and will discuss the procedures to be followed in such an event.</p> <p>CULT-MM-2: In the event that historic-period (e.g., bottles, foundations, refuse dumps/privies, railroads, etc.) or prehistoric (e.g., hearths, burials, stone tools, shell and faunal bone remains, etc.) archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A 50-foot buffer shall be established by the Qualified Archaeologist around the find where construction activities shall not be allowed to continue. Work may continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be evaluated by the Qualified Archaeologist. If a resource is determined by the Qualified Archaeologist to constitute a “historical resource” pursuant to CEQA Guidelines Section 15064.5(a) or a “unique archaeological resource” pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with the Applicant and the City to develop a formal treatment plan that would serve to reduce impacts</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>to the resources. If any prehistoric archaeological sites are encountered within the project area, consultation with interested Native American parties will be conducted to apprise them of any such findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If, in coordination with the City, it is determined that preservation in place is not feasible, appropriate treatment of the resource shall be developed by the Qualified Archaeologist in coordination with the City and may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing, analysis, and reporting. Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes.</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>CULT-MM-3: Prior to the release of the grading bond, the Qualified Archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of archaeological monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources. The report and the Site Forms shall be submitted by the Project applicant to the City, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the development and required mitigation measures.</p> <p>CULT-MM-4: Although Project disturbance planned for ingress and egress to the Project Site and ancillary construction for utilities and other infrastructure related to the Project would result in mainly surficial excavation, if the Zanja is located where mapped, such construction has the potential to encounter the Zanja. The following recommendations would reduce impacts to the Zanja. If Zanja-related infrastructure is unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. An appropriate exclusion</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>area that takes into account the linear nature of the resource shall be established by the Qualified Archaeologist. Construction activities shall not be allowed to continue within the exclusion area until directed by the Qualified Archaeologist in consultation with the City, but work shall be allowed to continue outside of the exclusion area. The Qualified Archaeologist shall coordinate with the Applicant and the City's Office of Historic Resources to develop a formal treatment plan for the resource that would serve to mitigate impacts to the resource. The treatment measures listed in California Code of Regulations Section 15126.4(b) shall be considered when determining appropriate treatment for the Zanja. As noted in California Code of Regulations Section 15126.4(b)(A), preservation in place (i.e., avoidance) is the preferred manner of mitigating impacts to archaeological sites. If, in coordination with the City, it is determined that preservation in place is not feasible, other treatment measures for the resource shall be developed by the Qualified Archaeologist in coordination with the Office of Historic Resources and with final approval by the City. Treatment would be designed to address the resource's eligibility under Criterion 1 (significant events), Criterion 2 (important persons), Criterion 3 (type, period, region or method of construction), and Criterion 4 (scientific data) and may include implementation</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>of: (1) data recovery excavations to document and remove the resource, followed by subsequent laboratory processing, analysis, and reporting; (2) a commemoration program that includes the development of an interpretive exhibit/display or plaque at the Project Site; and/or (3) other public educational and/or interpretive treatment measures determined appropriate by the Qualified Archaeologist in consultation with the City's Office of Historic Resources. Any associated artifacts collected that are not made part of the interpretive collection shall be curated at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the materials, they shall be offered for donation to a local school or historical society for educational purposes.</p> <p>CULT-MM-5: The Qualified Archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms for the Zanja resource. The report shall outline the treatment measures implemented, and shall include a description of the resource and the results of any artifact processing, analysis, and research that was conducted. The report and the Site Forms shall be submitted by the Qualified Archaeologist to the City and</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		the South Central Coastal Information Center.	
Threshold b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	None	CULT-MM-1 CULT-MM-2 CULT-MM-3 CULT-MM-4 CULT-MM-5	<p>Less than Significant with Mitigation.</p> <p>As the identified potential historic resources may also qualify as archeological resources, the Project's construction may also impact archeological resources. However, impacts would be mitigated through the incorporation of CULT-MM-1 through CULT-MM- 5.</p>
Threshold c) Would the project disturb any human remains including those interred outside of dedicated cemeteries?	None	No mitigation measures are required	Less than Significant

IV.D Energy

Threshold a) Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	AQ-PDF-1: Green Building Features: (refer to the Air Quality summary above) WS-PDF-1: Water Conservation Features (refer to the Water Supply summary below)	No mitigation measures are required	Less than Significant
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Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Threshold b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	AQ-PDF-1: Green Building Features: (refer to the Air Quality summary above) WS-PDF-1: Water Conservation Features (refer to the Water Supply summary below)	No mitigation measures are required	Less than Significant
Threshold a) [from Utilities and Service Systems Questions]: Would the project require or result in the relocation or construction of new or expanded electric power or natural gas facilities, the construction or relocation of which could cause significant environmental effects?	AQ-PDF-1: Green Building Features: (refer to the Air Quality summary above) WS-PDF-1: Water Conservation Features (refer to the Water Supply summary below)	No mitigation measures are required	Less than Significant
IV.E Geology and Soils			
Threshold a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk or loss, injury, or death, involving: • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines	None	No mitigation measures are required	Less Than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
and Geology Special Publication 42. <ul style="list-style-type: none"> • Strong seismic ground shaking? • Seismically-related ground failure, including liquefaction? • Landslides? 			
Threshold b) Would the project result in substantial soil erosion or the loss of topsoil?	None	No mitigation measures are required	Less than Significant
Threshold c) Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the Project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	None	No mitigation measures are required	Less than Significant
Threshold d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risk to life or property?	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Threshold e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	None	No mitigation measures are required	No Impact
Threshold f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Applicable	<p>GEOL-MM-1: A Qualified Paleontologist meeting the Society of Vertebrate Paleontology (SVP) Standards (SVP, 2010) (Qualified Paleontologist) shall be retained prior to the approval of demolition or grading permits. The Qualified Paleontologist shall provide technical and compliance oversight of all work as it relates to paleontological resources, shall attend the Project kick-off meeting and Project progress meetings on a regular basis, and shall report to the Project Site in the event potential paleontological resources are encountered.</p> <p>GEOL-MM-2: The Qualified Paleontologist shall conduct construction worker paleontological resources sensitivity training at the Project kick-off meeting prior to the start of ground disturbing activities (including vegetation removal, pavement removal, etc.). In the event construction crews are phased, additional training shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project Site and</p>	Less than Significant with Mitigation. Substantial excavation within the Project Site is planned at depths up to 64 feet below ground surface, which would intercept older alluvium determined to have a high sensitivity for fossils. Accordingly, mitigation measures addressing the Project's potential impacts on previously unknown paleontological resources would reduce impacts to a less than significant level.

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>the procedures to be followed if they are found. Documentation shall be retained by the Qualified Paleontologist demonstrating that the appropriate construction personnel attended the training.</p> <p>GEOL-MM-3: Paleontological resources monitoring shall be performed by a qualified paleontological monitor (meeting the standards of the SVP, 2010) under the direction of the Qualified Paleontologist. Paleontological resources monitoring shall be conducted for all ground disturbing activities that exceed 15 feet in depth in previously undisturbed older Alluvial sediments which have high sensitivity for encountering paleontological resources. However, depending on the conditions encountered, full-time monitoring within these sediments can be reduced to part-time inspections or ceased entirely if determined appropriate by the Qualified Paleontologist. The surficial Alluvium has low paleontological sensitivity and so work in the upper 15 feet of the Project Site does not require monitoring. The Qualified Paleontologist shall spot check the excavation on an intermittent basis and recommend whether the depth of required monitoring should be revised based on his/her observations. Monitors shall have the authority to temporarily halt or divert work away from exposed fossils or potential fossils. Monitors shall prepare daily logs detailing the types of</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		activities and soils observed, and any discoveries. GEOL-MM-4: Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. The Qualified Paleontologist shall prepare a final monitoring and mitigation report for submittal to the City in order to document the results of the monitoring effort and any discoveries. If there are significant discoveries, fossil locality information and final disposition will be included with the final report which will be submitted to the appropriate repository and the City.	
IV.F Greenhouse Gas Emissions			
Threshold a) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	<p>AQ-PDF-1: Green Building Features: (refer to the Air Quality summary above) This Project Design Feature requires the Project to incorporate energy and water efficiency designs that achieve the equivalent of the USGBC LEED Gold Certification level for new buildings, which would minimize building energy demand and associated GHG emissions.</p> <p>GHG-PDF-1: GHG Emission Offsets: The Project will provide or obtain GHG emission offsets as required as described in the Project's Environmental Leadership Development Project certification and related documentation pursuant to the <i>Jobs and Economic Improvement Through Environmental Leadership Act</i>.</p>	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>Prior to issuance of any Certificate of Occupancy for the Project, the Applicant or its successor shall commit to entering into one or more contracts to purchase carbon credits from a recognized and reputable carbon registry (to be selected from an accredited registry), which contract, together with any previous contracts for the purchase of carbon credits, shall evidence the purchase of carbon credits in an amount sufficient to offset the Operational Emissions attributable to the Project, and shall be calculated on a net present value basis for a 30-year useful life.</p> <p>WS-PDF-1: Water Conservation Features: (refer to the Water Supply summary below). This Project Design Feature requires the Project implement water conservation features that are in addition to those required by codes and ordinances, which would minimize building water demand and associated GHG emissions.</p>		
<p>Threshold b) Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?</p>	<p>AQ-PDF-1: Green Building Features: (refer to the Air Quality summary above)</p> <p>GHG-PDF-1</p> <p>WS-PDF-1 Water Conservation Features: (refer to the Water Supply summary below)</p>	<p>No mitigation measures are required</p>	<p>Less than Significant</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
IV.G Hazards and Hazardous Materials			
Threshold a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	None	No mitigation measures are required	Less than Significant
Threshold b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	None	<p>HAZ-MM-1 - Soil Management Plan: A Soil Management Plan (SMP) shall be prepared that would provide guidance to contractors for appropriate handling, screening, and management of potentially impacted or impacted soils from historical operations that may be encountered at the Project Site during grading and excavation activities. These procedures would include training for construction personnel on the appropriate procedures for identification of suspected impacted soils; requirements for testing and collection of potentially contaminated soils; segregation of potentially impacted soils; and applicable soil handling and disposal procedures. The SMP shall also contain procedures to be followed in the event that undocumented subsurface features of potential environmental concern (e.g., USTs, abandoned oil wells, sumps, hydraulic lifts, clarifiers, buried drums) are encountered during the excavation grading, and/or other earthmoving activities. These procedures would include safety training, testing protocols, decontamination and</p>	<p>Less than Significant with Mitigation.</p> <p>Potential impacts during demolition activities regarding asbestos and lead-based paint materials would be controlled through the implementation of regulatory measure that would protect the public safety.</p> <p>While subsurface soil and soil gas vapors have tested under applicable screening levels, to avoid the risk of potentially impacted or impacted soils that may be encountered at the Project Site during deep excavation activities, Mitigation Measure, HAZ-MM-1 has been recommended to require preparation of a Soils Management Plan and will mitigate any potential</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>decommission standards, and notification to the appropriate relevant regulatory oversight agency or agencies.</p> <p>The SMP would also include procedures for handling and transportation of soils with respect to nearby sensitive receptors, such as nearby residential uses, religious uses, and schools. In accordance with SCAQMD Rule 1166 requirements, impacted soil removed from the Project Site shall comply with the following:</p> <ul style="list-style-type: none"> • Be transported to an approved treatment/disposal facility. • When loading into trucks is completed, and during transportation, no excavated material shall extend above the sides or rear of the truck or trailer. • Prior to covering/tarping, loaded impacted soil shall be wetted by spraying with dust inhibitors. • The trucks or trailers shall be completely covered/tarped prior to leaving the Project Site to prevent particulate emissions to the atmosphere. • The exterior of the trucks (including the tires) shall be cleaned off prior to the trucks leaving the excavation location <p>HAZ-MM-2 - USTs: For earthwork activities occurring within the sidewalk in the vicinity of West 11 Street and South Olive Street, potholing prior to</p>	<p>impacts to less than significant levels.</p> <p>In addition, three small USTs were identified on a substructure map within the sidewalk along West 11th Street and South Olive Street adjacent to the Project Site. Earthwork that may occur in the vicinity of the potential tank locations may encounter the tanks and residual contamination or other hazardous chemicals. To avoid contact with, or release of, hazardous materials associated with removal of such potential USTs and related infrastructure, HAZ-MM-2 will ensure that hazards to public safety will be avoided and impacts will be reduced to a less than significant level.</p> <p>Operation of the project will result in less than significant impacts.</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		construction is recommended to assess if a UST is present and to reduce the potential for construction delays. If a UST is identified, a tank removal permit and oversight of the removal shall be submitted to the Los Angeles Fire Department.	
Threshold c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	None	HAZ-MM-1 – Soil Management Plan	<p>Less than Significant with Mitigation.</p> <p>Schools closest to the Project Site are Los Angeles Unified School District's (LAUSD's) Los Angelitos Early Education Center located at 915 S. Olive Street, and LA Child Care and Development Council at 1001 S Hope Street, both located approximately 0.17 miles northwest of the Project Site. The potential threat from such release would be primarily confined to the Project Site and its immediately adjacent area. However, a truck hauling contaminated material from the Project Site could pose a threat to the nearby schools if the hazardous materials were not properly secured. HAZ-MM-1 includes the preparation of a SMP to protect the</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
			safe transit of hazardous materials and reduces impacts to a less than a significant level.
<p>Threshold d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</p>	None	HAZ-MM-1 – Soil Management Plan	<p>Less than Significant with Mitigation</p> <p>The Project Site is listed on the Hazardous Waste Information System (HAZNET) and FINDS Database for the historic use of halogenated solvents, photochemical/photo processing waste, and unspecified solvent mixtures uses. However, the database indicates no violations and a soil sampling analysis as part of a Phase I/II ESA tested under applicable screening levels.</p> <p>However, the SMP part of HAZ-MM-1 would include guidance to contractors for appropriate screening and management of potentially impacted or impacted soils that may be encountered during grading and excavation activities, and impacts would be less than significant after mitigation.</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Threshold e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the Project result in a safety hazard or excessive noise for people residing or working in the project area?	None	No mitigation measures are required	No Impact
Threshold f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	TRAF-PDF-1: Construction Management Plan (refer to, the Transportation and Traffic summary below)	No mitigation measures are required	Less than Significant
Threshold g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	None	No mitigation measures are required	No impact
IV.H Hydrology And Water Quality			
Threshold a) Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?	None	No Mitigation Measures are required. Impacts are reduced by HAZ-MM-1; and HAZ-MM-2, listed for Hazards above	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Threshold b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	None	No mitigation measures are required	Less than Significant
Threshold c.i) Would the project substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would result in substantial erosion or siltation on- or off-site?	None	No mitigation measures are required	Less than Significant
Threshold c.ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Threshold c.iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	None	No mitigation measures are required	Less than Significant
Threshold a) [from Utilities and Service Systems Questions]: Would the Project require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?	None	No mitigation measures are required	Less than Significant
Threshold c.iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
manner which would impede or redirect flood flows?			
Threshold d) Would the project, if in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	None	No mitigation measures are required	Less than Significant
Threshold e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	None	No mitigation measures are required	Less than Significant
IV.I Land Use and Planning			
Threshold a) Would the project physically divide an established community?	None	No mitigation measures are required	Less than Significant
Threshold b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	None	No mitigation measures are required	Less than Significant
IV.J Noise			
Threshold a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the	NOISE-PDF-1: The Project will not use impact pile drivers and will not allow blasting during construction activities. NOISE-PDF-2: Signs will be posted at Project truck loading areas prohibiting idling for more than 5 consecutive minutes.	NOISE-MM-1: The Project shall provide temporary ground-level construction fencing equipped with noise blankets rated to achieve sound level reductions of at least 10 dBA between the Project Site and the ground-level noise sensitive receptors at sensitive receptor locations R1 (mixed-use residential	Temporary Impacts (construction): Significant and Unavoidable Impact after Mitigation Construction of the Project would generate unmitigated construction noise levels that would

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
<p>local general plan or noise ordinance, or applicable standards of other agencies?</p>	<p>NOISE-PDF-3: Amplified sound in outdoor open space areas on the site shall be prohibited.</p> <p>AES-PDF-2: Parking Shielding: (refer to the Aesthetics summary above) This Project Design Feature requires that during operation, the podium parking be shielded from adjacent areas with minimum 36-inch high baffling panels behind architectural screen meshing for aesthetic character and for light and sound attenuation).</p>	<p>north of the Project Site) and R2 (mixed-use residential west of the Project Site). These temporary noise barriers shall be used to block the line-of-sight between the construction equipment and the noise-sensitive receptor during early Project construction phases (up to the start of framing) when the use of noisy heavy equipment such as concrete saws, crawler tractors, and drill rigs, is prevalent.</p> <p>Noise barriers shall be heavy-duty materials such as vinyl-coated polyester (VCP), at least 10 ounces per square yard and quilted for sound absorption, or other similarly effective materials. All noise barrier material types are equally effective, acoustically, if they have this density. The noise barrier shall have a minimum sound transmission class (STC) of 25 and noise reduction coefficient (NRC) of 0.75 or equivalent STC and NRC to achieve the 10 dBA reduction. STC is an integer rating of how well a wall attenuates airborne sound and NRC is a scalar representation of the amount of sound energy absorbed upon striking a wall.</p> <p>NOISE-MM-2: During framing and vertical building construction, the Project shall provide temporary flexible noise curtains or noise blankets along the Project's vertical structures rated to achieve sound level reductions of at least 10 dBA to block the line-of-sight between noise producing equipment</p>	<p>temporarily exceed the applicable significance thresholds at off-site noise-sensitive receptor property lines (including the two adjacent multi-family residential sites, located immediately west and north of the Project Site). Mitigation measures would require the placement of noise barriers between active construction sites and off-site uses, and would further require the use of proper construction equipment noise shielding and muffling devices during construction activities. However, residual temporary significant construction noise impacts would remain after mitigation.</p> <p>Permanent Impacts (Operations): Less than Significant Impact</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<p>and the adjacent residential land uses at sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site), where the use of such noise curtains or noise blankets would not interfere with the safety, integrity, and necessary construction activities of framing and vertical building construction.</p> <p>NOISE-MM-3: Contractors shall ensure that all construction equipment, fixed or mobile, are equipped with properly operating and maintained noise shielding and muffling devices, consistent with manufacturers' standards. The contractor shall use muffler systems (e.g. absorptive mufflers) that provide a minimum reduction of 8 dBA compared to the same equipment without an installed muffler system, reducing maximum construction noise levels.</p> <p>NOISE-MM-6: The Project shall provide a construction site notice that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public.</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
<p>Threshold b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?</p>	<p>NOISE-PDF-1</p>	<p>NOISE-MM-4: The operation of construction equipment that generates high levels of vibration, such as large bulldozers and loaded trucks, shall be prohibited within 80 feet of the property lines of existing residential uses adjacent to the Project Site. Instead, rubber-tired equipment not exceeding 400 horsepower shall be used in these areas during demolition, grading, and excavation operations within 80 feet from the sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site).</p> <p>NOISE-MM-5: To reduce potential construction noise impacts and vibration impacts regarding human annoyance, the Applicant shall designate a construction relations officer to serve as a liaison with the adjacent mixed-use developments (R1 and R2). The liaison shall be responsible for responding to concerns regarding construction noise and vibration within 24 hours of receiving a complaint. The liaison shall ensure that steps will be taken to reduce construction noise and vibration levels as deemed appropriate and safe by the on-site construction manager. Such steps could include the use of noise absorbing curtains or blankets, vibration absorbing barriers, substituting lower noise or vibration generating equipment or activity, rescheduling of high noise or vibration-generating construction</p>	<p>Less than Significant with mitigation</p> <p>Vibration levels during Project construction would exceed the 0.5 in/sec PPV significance threshold for potential residential building damage at the sensitive receptor location adjacent to the site to the north (Oakwood Olympic & Olive project). Construction of the Project could also potentially generate vibration levels that may result in damage to the Zanja No. 8. Groundbourne vibration and noise would also expose the adjacent multifamily residents to the north and west to levels exceeding the threshold for human annoyance. However, mitigation measure NOISE-MM-4, as well as mitigation measures CULT-MM-1 through CULT-MM-5, would reduce the Project's construction groundborne vibration impacts on adjacent structures and the Zanja No. 8, and</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		activity, or other potential adjustments to the construction program to reduce noise or vibration levels at the adjacent mixed-use developments (sensitive receptor locations R1[mixed-use residential north of the Project Site] and R2 [mixed-use residential west of the Project Site]). CULT-MM-1 through CULT-MM-5 (refer to Cultural Resources summary above)	NOISE-MM-4 and NOISE-MM-5 would reduce impacts related to potential human annoyance to less than significant levels.
Threshold c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?	None	No mitigation measures are required	No Impact
IV.K Population and Housing			
Threshold a) Would the project induce substantial unplanned population growth in an area, either directly (for example by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
Threshold b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	None	No mitigation measures are required	No Impact
IV.L.1 Fire Protection			
Threshold a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., fire service facilities), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?	TRAF-PDF-1: Construction Management Plan (refer to the Transportation and Traffic summary below)	No mitigation measures are required	Less than Significant
IV.L.2 Police Protection			
Threshold a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., police stations), need for new or physically altered governmental facilities, the construction of which would cause significant	POL-PDF-1: Construction Security Measures. During construction, on-site security measures will be incorporated, specifically: an eight-foot tall construction security fence, with gated and locked entry; controlled access, multiple security surveillance cameras, and 24-hour private construction security services. POL-PDF-2: Provision of Project Diagrams to LAPD: Prior to the	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
<p>environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?</p>	<p>issuance of a building permit, the Applicant will provide the Los Angeles Police Department (LAPD) Central Area Commanding Officer with a diagram of the Project Site, including access routes, gate access codes, and additional information, to facilitate potential LAPD responses once the Project is operating.</p> <p>POL-PDF-3: On-Site Operational Security Measures. On-site security measures during Project operation will incorporate strategies from Crime Prevention through Environmental Design (CPTED) and include:</p> <ul style="list-style-type: none"> • Secured building access/design to residential areas (electronic keys specific to each user); • Lighting of building entryways and Plaza areas; • Staff training in safety and sound security policies; • 24-hour video surveillance; • Trained 24-hour security personnel (providing assistance to residents and visitors with Site access; monitoring entrances and exits of the building; managing and monitoring fire/life/safety systems; and patrolling the Project Site, including parking areas). • Installation and utilization of an extensive security camera network, with approximately 40-50 cameras throughout the underground and above-grade parking structure; the elevators; the common and amenity spaces; the lobby areas; and the 		

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	rooftop and ground level outdoor open spaces; <ul style="list-style-type: none"> • Maintaining all security camera footage for at least 30 days, and providing such footage to LAPD as needed; and • Maintaining approximately 30-40 staff on-site, including 24 hours at the lobby concierge desk and within the car valet areas, with designated staffers dedicated to monitoring the Project's security cameras and directing staff to locations where any suspicious activity is viewed. TRAF-PDF-1: Construction Management Plan (refer to the Transportation and Traffic summary below) TRAF-PDF-2: Pedestrian Safety Plan (refer to the Transportation and Traffic summary below)		

IV.L.3 Schools

Threshold a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities (i.e., schools), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response	None	No mitigation measures are required	Less than Significant
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Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
times or other performance objectives for schools?			
IV.L.4 Libraries			
Threshold a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities (libraries)?	None	No mitigation measures are required	Less than Significant
IV.L.5 Parks and Recreation			
Threshold a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	None	No mitigation measures are required	Less than Significant
Threshold b) Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
physical effect on the environment?			
Threshold c) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., parks), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?	None	No mitigation measures are required	Less than Significant
IV.M Transportation and Traffic			
Threshold a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	TRAF-PDF-1: Construction Management Plan: A Construction Traffic Management Plan shall be prepared for approval by the City prior to the issuance of any construction permits, to incorporate the measures identified below, as well as a Worksite Traffic Control Plan specifying the details of any sidewalk or lane closures. The Worksite Traffic Control Plan will be developed by the Applicant, and will identify all traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. The Worksite Traffic Control Plan would minimize the	TRAF-MM-1: Transportation Demand Management (TDM) Program: The Project shall implement a TDM program to encourage the use of non-auto modes of transportation and reduce vehicle trips. A preliminary TDM program shall be prepared and provided for LADOT review prior to the issuance of the first building permit for the Project and a final TDM program shall be approved by DOT prior to the issuance of the first certificate of occupancy. The preliminary plan shall include, at a minimum, measures consistent with the City's Trip Reduction Ordinance. As recommended by the Project's Transportation Study, the	Less than Significant with Mitigation The Project would result in a potentially significant impacts during the morning and afternoon peak hours at Olive Street & Olympic Boulevard, and at three intersections in the afternoon peak hour: Grand Avenue & 11th Street, Olive Street & Pico Boulevard and, Olive Street & 17 th Street. Implementation of the mitigation measures

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>potential conflicts between construction activities, street traffic, bicyclists and pedestrians. The plan will be reviewed and approved by LADOT prior to commencement of construction and will include, but not limited to, the following elements as appropriate:</p> <ul style="list-style-type: none"> • Maintain access for land uses in the vicinity of the Project site during construction. • Schedule construction material deliveries to off-peak periods to the extent possible. • Minimize obstruction of traffic lanes on Olive Street and 11th Street adjacent to the Project Site. • Organize site deliveries and the staging of all equipment and materials in the most efficient manner possible, and on-site where possible, to avoid an impact to the surrounding roadways, • Coordinate truck activity and deliveries to ensure trucks do not wait to unload or load at the site and impact roadway traffic. If needed, utilize an organized off-site staging area. Off-site staging areas shall be identified at an area that would avoid impacts to on-street parking or neighborhoods. • Control truck and vehicle access to the Project Site with flagmen. • Sidewalk access on Olive Street and 11th Street will be maintained during construction through the use of covered protective walkways. A Worksite Traffic Control Plan will be 	<p>TDM program shall include, but not be limited to the following strategies:</p> <ul style="list-style-type: none"> • Promotion and support of carpools and rideshares, including parking and transit incentives; • Preferential parking for carpools and vanpools for employees; • Provide on-site real-time information displays to make available real-time information on car-sharing, transit, vanpools, taxis; • Transit Welcome Package – to all new residents/employees with info on alternate modes and walk to destination opportunities; • Unbundling of residential parking; • Participate in a Car-Share Program to provide vehicle spaces for car share vehicles; • Provide access to collapsible shopping carts and/or cargo bike for ease of local shopping; • Provide discounts for employees who utilize public transit to travel from the project site; • On-site bicycle amenities such as access to free bicycles for residential guests, on-site repair station and bicycle racks, and lockers/showers for residents and employees; • Provide a free bike share service for residents; 	<p>would reduce potentially significant impacts to less than significant levels.</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>prepared for approval by the City, to facilitate pedestrian and traffic and movement, in order to minimize any potential conflicts.</p> <ul style="list-style-type: none"> • Coordinate with the City, emergency service providers, neighboring property management, and surrounding construction related project representatives (i.e., construction contractors) whose projects would potentially be under construction at around the same time as the Project to ensure adequate access is maintained to the Project Site and neighboring properties. Meetings shall be conducted bimonthly, or as otherwise determined appropriate by City Staff. • Parking for construction workers will be provided off-site in off-street locations. Parking will not be allowed on streets in the vicinity of the Project. <p>TRAF-PDF-2: Pedestrian Safety Plan: The Applicant shall plan construction and construction staging so as to maintain pedestrian access, including Safe Routes to Schools, on adjacent sidewalks throughout all construction phases. The Applicant will maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding, etc.) from work space and vehicular traffic and overhead protection, due to sidewalk closure or blockage, at all times. Temporary pedestrian facilities will be adjacent to the Project Site and provide safe, accessible routes that</p>	<ul style="list-style-type: none"> • Participate in the City's Bike Share Program by providing an area for bike share facility • A one-time fixed-fee contribution of \$75,000 to be deposited into the City's Bicycle Plan Trust Fund prior to the issuance of any certificates of occupancy to be used to implement bicycle improvements within the Project area; • Make a one-time financial contribution of \$75,000 to the City of Los Angeles Department of Transportation for the implementation of First and Last Mile transit access measures in the vicinity of the project site; • Ridesharing Services Program which would match employees together to establish carpools and vanpools; • Record a Covenant and Agreement to ensure that the TDM program will be maintained. <p>In order to assess the Project's actual trip generation and any subsequent TDM Plan (if deemed necessary), a traffic monitoring plan shall be implemented once the Project is built and occupied to equilibrium (i.e., the level at which the owner/management deems maximum occupancy). The monitoring program shall be conducted annually to ensure compliance for a period of three years. If the Project is found to not conform to the trip reduction targets of 30 trips in the AM peak hour and 33 trips during the</p>	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<p>replicate as nearly as practical the most desirable characteristics of the existing facility. Covered walkways will be provided where pedestrians are exposed to potential injury from falling objects. The Applicant will keep sidewalks open during construction except when it is absolutely required to close or block the sidewalks for construction staging. Sidewalks will be reopened as soon as reasonably feasible, taking construction and construction staging into account. In the event that multiple projects are under construction in the area simultaneously that would affect the same sidewalk(s), the Applicant shall coordinate with LADOT to ensure pedestrian safety along the sidewalks is maintained in the immediate vicinity around the Project Site.</p>	<p>afternoon peak hour, the Project shall have an additional year to meet the trip reduction levels. If the Project continues to not meet the TDM goals, the City and Project staff shall cooperate on implementing further TDM Strategies. The final traffic monitoring plan and TDM Plan shall be prepared for and approved by the LADOT prior to the issuance of the first certificate of occupancy for the Project.</p> <p>TRAF-MM-2: Transportation System Management (TSM) Improvements.</p> <p>The Project shall contribute up to \$100,000 toward TSM improvements to intersections within the vicinity of the Project that may be considered to better accommodate intersection operations and increase intersection capacity throughout the Project's Transportation Study area.</p> <p>A final determination on how to implement the TSM improvements will be made by LADOT prior to the issuance of the first building permit. These TSM improvements shall be implemented either by the Applicant through the B-Permit process of the Bureau of Engineering (BOE), or through payment of a one-time fixed fee of \$100,000 to LADOT to fund the cost of the upgrades.</p> <ul style="list-style-type: none"> • If LADOT selects the payment option, then the Applicant shall pay \$100,000 to LADOT, and LADOT shall design and construct the upgrades. 	

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
		<ul style="list-style-type: none"> If the upgrades are implemented by the Applicant through the B-Permit process, then these TSM improvements shall be guaranteed prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Temporary certificates of occupancy may be granted in the events of any delay through no fault of the Applicant, provided that, in each case, the Applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT. 	
Threshold b) Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	None	No mitigation measures are required	Less Than Significant
Threshold c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	None	No mitigation measures are required	Less than Significant
Threshold d) Would the project result in inadequate emergency access?	TRAF-PDF-1: Construction Management Plan	No mitigation measures are required	Less than Significant
IV.N Tribal Cultural Resources			
Threshold a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
<p>Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?</p>			
<p>Threshold b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to</p>	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			
IV.O.1 Wastewater			
Threshold a) Would the project require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects?	WS-PDF-1: Water Conservation Features (refer to the Water Supply summary below)	No mitigation measures are required	Less than Significant
Threshold b) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	None	No mitigation measures are required	Less than Significant

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
IV.O.2 Water Supply			
<p>Threshold a) Would the project require or result in relocation or construction of new or expanded water facilities, the construction or relocation of which would cause significant environmental effects?</p>	<p>WS-PDF- 1: Water Conservation Features:</p> <p>The Project shall implement the following water conservation features that are in addition to those required by codes and ordinances:</p> <ul style="list-style-type: none"> • High Efficiency Toilets with a flush volume of 1 gallon per flush, or less • Urinal flush volumes of 1.0 gallons per minute, or less • Showerheads with a flow rate of 1.2 gallons per minute, or less • ENERGY STAR Certified Residential Clothes Washers - Front-loading or Top-loading with Integrated Water Factor of 3.2 or less and capacity of 4.5 cubic feet • ENERGY STAR Certified Residential Dishwashers - compact with 3 gallons/cycle or less • Domestic Water Heating System located close proximity to point(s) of use • Individual metering and billing for water use for every residential dwelling unit and commercial unit • Tankless and on-demand Water Heaters • Water-Saving Pool Filter • Pool/Spa recirculating filtration equipment 	<p>No mitigation measures are required</p>	<p>Less than Significant</p>

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
	<ul style="list-style-type: none"> • Pool splash troughs around the perimeter that drain back into the pool • Install a meter on the pool make-up line so water use can be monitored and leaks can be identified and repaired • Reuse pool backwash for irrigation • Leak Detection System for swimming pools and Jacuzzi • Drip/Subsurface Irrigation (Micro-Irrigation) • Micro-Spray • Proper Hydro-zoning/Zoned Irrigation - (groups, plants with similar water requirements together) • Artificial Turf • Drought Tolerant Plants - approximately 70 percent of landscaping • Water Conserving turf - approximately 30 percent of total landscaping 		
Threshold b) Would the project have sufficient water supplies available to service the project and reasonably foreseeable future development during normal, dry and multiple dry years?	WS-PDF- 1: Water Conservation Features	No mitigation measures are required	Less than Significant
Initial Study			
Biological Resources			
Question IV. d) Would the project interfere substantially with the		Initial Study MM-BIO-1: Prior to issuance of a grading permit, the Project Applicant shall demonstrate that the following requirements have been	Less than Significant with Mitigation.

Environmental Impacts	Project Design Features (PDF)	Mitigation Measures (MM)	Level of Significance
movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		<p>included in the Project construction plan:</p> <ol style="list-style-type: none"> 1. Any construction activities that occur during the nesting season (February 15 to August 31) shall require that all suitable habitat (i.e., street trees and shrubs) be surveyed for the presence of nesting birds by a qualified biologist, retained by the Applicant as approved by the City of Los Angeles Building and Safety, before commencement of clearing and prior to grading permit issuance. The survey shall be conducted within 72 hours prior to the start of construction. A copy of the pre-construction survey shall be submitted to the City of Los Angeles Building and Safety. 2. If the required pre-construction survey detects any active nests, an appropriate buffer as determined by the biological monitor, shall be delineated, flagged, and avoided to the extent feasible until the qualified biological monitor has verified that the young have fledged or the nest has otherwise become inactive. 	Potential exists for protected bird species to be nesting in the street trees during Project construction. Regulatory compliance with the Migratory Bird Treaty Act will ensure that impacts are less than significant, and implementation of MM-BIO-1 provides supplemental guidance for compliance with the Act.

Chapter I

Introduction

This Draft Environmental Impact Report (Draft EIR) has been prepared for the 1045 Olive Project (the Project). The Project proposes an up to 751,777 square foot mixed-use high-rise development (the Project) on a 0.96-acre site located at the northwest corner of Olive Street and 11th Street (Project Site). Five existing single-story commercial buildings containing 35,651 square feet of floor area would be removed from the Project Site to allow for development of the Project.

The Project would include a maximum of 794 residential units and 12,504 square feet of neighborhood serving commercial (restaurant/retail) uses. A 61-story tower would sit atop a nine-level podium structure (Podium) for a total of 70 floors above grade, up to 810 feet in height. The Project would also have six subterranean levels and eight above-ground levels of automobile parking. Vehicular and bicycle parking would be provided consistent with the requirements of the LAMC. Approximately 103,380 square feet of public and private open space would be provided, including a ground level public plaza with landscaping and public art (Plaza). Open space and recreation facilities for residents would be located on the 8th Floor cut-out Terrace and larger 10th Floor Terrace, within mid-building cut-out areas on the upper floor levels, and on a Tower Rooftop Terrace and within private balconies.

This Draft EIR analyzes the potential impacts of the Project in accordance with the California Environmental Quality Act (CEQA) and applicable City requirements.

1. Purpose of the Draft EIR

The purpose of this Draft EIR is to inform decision-makers and the general public of the environmental impacts resulting from the 1045 Olive Project if approved for development.

The City of Los Angeles (the City) is the Lead Agency under the CEQA that is responsible for preparing this Draft EIR. This Draft EIR has been prepared in conformance with CEQA (California Public Resources Code Section 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.). Although not specifically required under CEQA, the Project would voluntarily meet the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act (the Act), which would allow the Project to qualify for streamlined environmental review as an Environmental Leadership Development Project (ELDP) under CEQA. The Act requires that the Project not result in any net additional GHG emissions as determined by the Executive Director of the California Air Resources Board (CARB), be designed to achieve at least a U.S. Green Building Council Leadership in Energy and Environmental Design

(LEED) Gold level of certification, create highly skilled and high paying jobs, and invest at least \$100 million in California.

The City is responsible for processing and approving the Project pursuant to CEQA Section 21067. Before, deciding whether to approve or deny the Project, the City will consider the information in this Draft EIR, along with other information that may be presented during the CEQA process, including, without limitation, the Initial Study and the Final EIR. The EIR will be used in connection with all other permits and all other approvals necessary for the construction and operation of the Project. Should the City approve the Project, the EIR, including both the Draft EIR and the Final EIR, will be used in connection with all other permits and all other approvals necessary for Project construction and operation. The EIR will also be used by the City's Department of City Planning; Department of Building and Safety; Department of Transportation (LADOT); and Department of Public Works, including the Bureaus of Engineering and Sanitation; and other responsible public agencies that must approve activities undertaken with respect to the Project.

In accordance with the requirements of CEQA and the State CEQA Guidelines, this Draft EIR provides specific information regarding the environmental effects associated with development of the Project Site and ways to minimize any significant environmental effects through mitigation measures or reasonable alternatives to the Project. The EIR will also inform the findings of fact, and provide an evidential basis, for any discretionary acts of the City with respect to the Project. For some effects, significant environmental impacts cannot be mitigated to a level considered less than significant; in such cases, impacts are considered significant and unavoidable. In accordance with CEQA Section 21081 and Section 15093(b) of the State CEQA Guidelines, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts where impacts cannot be mitigated to less than significant levels), the agency must state in writing the specific reasons for approving the project, based on the Final EIR and/or other information in the public record, and identified project benefits that would outweigh the significant environmental consequences. This is known as a "statement of overriding considerations."

This Draft EIR was prepared in accordance with Sections 15146 (Degree of Specificity) and 15151 (Standards for Adequacy) of the State CEQA Guidelines. This analysis considers the construction activities and operational characteristics associated with the Project, to determine the short-term and long-term effects associated with their implementation. This EIR discusses both the direct and indirect impacts of this Project, as well as the cumulative impacts of the Project together with other past, present, and reasonably foreseeable future projects. CEQA requires the preparation of an objective, full disclosure document to inform agency decision-makers and the general public of the direct and indirect environmental effects of the proposed action, including mitigation measures and reasonable alternatives that can reduce or eliminate any identified significant adverse impacts.

2. EIR Scoping Process

In compliance with CEQA and the State CEQA Guidelines, the City prepared an Initial Study and circulated a Notice of Preparation of a Draft Environmental Impact Report (NOP) for public comment to the State Clearinghouse, Office of Planning and Research, responsible agencies, and other interested parties on December 21, 2017 for a 30-day public review period. The Initial Study, NOP, and NOP comment letters are included in Appendix A of this Draft EIR. A public Scoping Meeting was held on January 10, 2018.

In accordance with Section 15063(a) of the State CEQA Guidelines, in December 2017, the City prepared an Initial Study for the 1045 Olive Project for the purpose of determining the potential environmental effects of the Project. Attachment A, Project Description, of the Initial Study provides a detailed description of the Project, including its location and architectural renderings of the proposed 1045 Olive Project, and Attachment B, Explanation of Checklist Determinations, of the Initial Study evaluated each potential environmental effect of the Project in accordance with the Environmental Impact Questions included in Appendix G of the State CEQA Guidelines.

The Initial Study concluded that the Project may result in potentially significant impacts associated with several environmental issues and therefore, would require further evaluation in an EIR. The Initial Study analyses is based on the Appendix G questions that were used by the City at the time the Project's NOP was distributed in December of 2017. Subsequent to the distribution of the NOP, the California Resources Agency updated the Appendix G questions in December 2018 for implementation in 2019. The revised questions are substantially consistent with the Questions used in the Project's Initial Study, and the conclusions therein regarding the topics to be addressed in an EIR would not be affected. The Initial Study is included in Appendix A-2 of this Draft EIR.

The Draft EIR analyzes the Project's potential impacts based on the updated Appendix G questions that are currently in effect. The Draft EIR identifies potentially significant direct, indirect, and cumulative impacts resulting from construction and operation of the Project and identifies mitigation measures to reduce or avoid such effects, and assesses the level of the Project's impacts with implementation of the identified mitigation measures. Based on the analysis provided in the Initial Study, and on comments received during the EIR scoping process (see subsections b and c, below), this Draft EIR addresses potential environmental effects in the following issue areas:

- Aesthetics
- Air Quality
- Cultural Resources
- Energy
- Geology and Soils/Paleontological Resources

- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
 - Fire Protection
 - Police Protection
 - Schools
 - Libraries
 - Parks and Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities
 - Wastewater
 - Water Supply

Based on the Initial Study, issues for which no significant impacts are anticipated as a result of Project implementation, and not evaluated further in the Draft EIR, include Agriculture and Forestry Resources, Air Quality (Odors), Biological Resources, Geology (Landslides; Septic Tanks), Hazards (Airport Hazards; Wildfire Hazards), Hydrology (Seiche, Tsunami and Mudflow), Land Use (Physically Divide A Community; Conflict with a Natural Community Conservation Plan), Mineral Resources, Noise (Airport Noise), Population and Housing (Displacement of Housing and People), and Utilities (Solid Waste).

The update to the Appendix G Questions in December 2018 added two new topics to the list of issues to be considered under CEQA review: Energy and Wildfire Hazard. As the Project might potentially have impacts regarding energy consumption, an analysis of Energy has been added to the Draft EIR impact analyses. The Project would not have significant impacts in regard to Wildfire Hazard. The explanation for the conclusion regarding Wildfire Hazard, and a discussion of the other environmental issues scoped out of the Draft EIR in the Initial Study, are provided in Chapter IV, *Other CEQA Considerations*, of this Draft EIR.

a) Notice of Preparation

Pursuant to Section 15082 of the State CEQA Guidelines, the City circulated an NOP to the State Clearinghouse, Office of Planning and Research, responsible agencies, and other interested parties including owners and occupants of properties within a 500-foot radius of the Project Site boundaries and within a 500-foot radius of the boundaries of the Transfer of Floor Area Rights (TFAR) Donor Site (Los Angeles Convention Center) located at 1201 S. Figueroa Street on December 21, 2017 for a 30-day review period, which ended in January 19, 2018. The purpose of the NOP was to formally convey that the City was preparing a Draft EIR for the Project and to solicit comments from agencies and the public regarding the scope and content of the environmental information to be included in the Draft EIR. Comments received in response to the NOP and Scoping Meeting have been taken into consideration in the preparation of the Draft EIR. A copy of the NOP is provided in Appendix A-1, NOP.

b) Public Scoping Meeting

The Scoping Meeting was held on January 10, 2018, between 5:00 and 7:00 PM at 1057 S. Olive Street in Los Angeles. The meeting afforded interested individuals, groups, and public agencies an opportunity to provide written and oral comments to the Lead Agency regarding the scope and focus of the Draft EIR. A copy of the Scoping Meeting materials is provided in Appendix A-3 of this Draft EIR.

c) Comments Received

Approximately six people signed into the Scoping Meeting and one comment form was received. Written comment letters and emails responding to the NOP were submitted to the City by South Coast Air Quality Management District, Laborers International Union of North America, and other individuals/other interested parties. Public comments received during the NOP circulation period are provided in Appendix A-4, NOP Comments Received, of this Draft EIR and are summarized in the Executive Summary, Section 4, Areas of Controversy/Issues to be Resolved.

3. Format of the Draft EIR

The Draft EIR includes an Executive Summary, eight Chapters, and appendices, which are organized as follows:

Executive Summary. This portion of the Draft EIR provides an overview of the entire document in a concise, summarized format. It briefly describes the Project (location and key project features), the CEQA review process and focus, identifies effects found to be significant and unavoidable, identifies areas of controversy, provides a summary of the Project alternatives (descriptions and conclusions regarding comparative impacts), and provides a table summarizing Project impacts, Project Design Features and mitigation measures, and the level of impact significance following implementation of mitigation measures.

- I. **Introduction.** This Chapter, describes the purpose of the EIR, including CEQA compliance requirements, steps undertaken to date regarding implementation of the CEQA process, and also summarizes the Draft EIR's organization and important comment period dates.
- II. **Project Description.** This Chapter describes the location, objectives, Project Design Features, and physical and operational characteristics of the Project.
- III. **General Description of Environmental Setting.** This Chapter presents an overview of the project's environmental setting, including on-site and surrounding land uses. This section also provides a list and the mapped locations of past, present, and probable future projects considered in the analysis of potential project contributions to cumulative impacts.
- IV. **Environmental Impact Analysis.** This Chapter contains the environmental setting, regulatory framework, methodology, thresholds of significance, Project characteristics and/or Project Design Features, project-specific and cumulative impact analyses, mitigation measures, and conclusions regarding the level of significance after mitigation for each environmental issue area addressed in the Draft EIR.
- V. **Alternatives.** This Chapter includes an assessment of a reasonable range of alternatives to the project, including Alternative 1- Existing Buildings with Increased Utilization Program within the existing buildings; and two alternatives that would replace the existing buildings with new development; Alternative 2- Reduced Density – FAR of 6:1 (No TFAR) and Alternative 3- Reduced Density – Increased Commercial Use with Senior Housing – FAR 6:1 (No TFAR). This section also contains a discussion of the alternatives that were considered, but rejected from further analysis in the Draft EIR. Further, this section also identifies the environmentally superior alternative.
- VI. **Other CEQA Considerations.** This Chapter includes a discussion of issues required by CEQA that are not covered in other chapters. These include summaries of significant and unavoidable impacts of the Project, reasons why the Project is being proposed notwithstanding significant unavoidable impacts, significant irreversible environmental changes, growth-inducing impacts, potential secondary effects caused by the implementation of the mitigation measures for the Project, and effects found not to be significant.
- VII. **References.** This Chapter lists the references and sources used in the preparation of this Draft EIR.
- VIII. **EIR Preparers and Organizations and Persons Contacted.** This Chapter lists the persons, public agencies, and organizations that were consulted or who contributed to the preparation of this Draft EIR.

The environmental impact analyses in this Draft EIR are supported by the following technical appendices:

- Appendix A – NOP, Initial Study, Scoping Meeting Materials, NOP Comments Received, and ELDP Documentation
 - A-1 NOP
 - A-2 Initial Study
 - A-3 Scoping Meeting Materials
 - A-4 NOP Comments Received
- Appendix B – Aesthetics Tables
- Appendix C – Air Quality
- Appendix D – Cultural Resources Assessment Report
- Appendix E – Energy Calculations
- Appendix F – Geology and Soils/Paleontological Resources
 - F-1 Preliminary Soil Report Letter
 - F-2 Report of Geotechnical Engineering
 - F-3 Paleontological Resources Assessment Report
- Appendix G – Greenhouse Gas Emissions Documentation
 - G-1 Greenhouse Gas Technical Appendix
 - G-2 ELDP Documentation Package
- Appendix H – Phase I and Limited Phase II Environmental Site Assessment
- Appendix I – Hydrology and Water Quality
 - I-1 Preliminary Hydrology Study
 - I-2 Preliminary LID Report
- Appendix J – Land Use Supplementary Table
- Appendix K – Noise and Vibration
- Appendix L – Population and Housing
- Appendix M – Public Services
 - M-1 Fire Protection
 - M-2 Police Protection
 - M-3 Schools

- M-4 Libraries
- M-5 Parks and Recreation
- Appendix N – Transportation and Traffic
 - N-1 LADOT Transportation Study Letter & 2019 Update Memorandum
 - N-2 Transportation Study - 2018
 - N-3 Transportation Study – 2019 Update
 - N-4 VMT Analysis, 2019
 - N-5 EIR Alternatives – LOS Traffic Evaluation
 - N-6 EIR Alternatives – VMT Traffic Evaluation
- Appendix O – Tribal Cultural Resources
- Appendix P – Utilities and Service Systems
 - P-1 Civil Engineering Report (Sewer and Water Infrastructure)
 - P-2 Water Supply Assessment
- Appendix Q – Economic and Fiscal Impact Analysis

4. Jobs and Economic Improvement through Environmental Leadership Act (Assembly Bill 900)

In September 2011, the Governor signed the Jobs and Economic Improvement through Environmental Leadership Act (AB 900) that applies to “environmental leadership development projects (ELDP projects)” that are subject to review under CEQA. The Act, codified at Public Resources Code (PRC) sections 21178-21189.3, establishes requirements to promote environmentally sustainable development with significant economic benefits by offering proponents of such development expedited processing of judicial actions challenging the certification of an EIR or the approval for an ELDP project, subject to judicial streamlining rules required under Section 21185. Such leadership projects, pursuant to application by a project proponent and certification by the State, include certain residential, commercial, cultural, sports, and recreational projects located at infill sites that (1) are certified by the U.S. Green Building Council as LEED Gold or better, (2) result in a minimum investment of \$100 million in California, (3) create high-wage, highly skilled jobs that pay prevailing wages and living wages, and help reduce unemployment, and (4) do not result in any net additional emission of greenhouse gases.

The Project qualifies as an ELDP project, as it would meet the qualification requirements: it is a mixed use development on an urban infill site that would achieve LEED Gold certification (or better), maximizes transit friendly features (resulting in a minimum 15 percent greater transportation efficiency), unbundles the residential parking, achieves no net additional greenhouse gas (GHG) emissions, and results in a minimum investment in California of \$100 million through the completion of construction. The Project would also

meet the qualifications by requiring contractor and subcontractor contracts to include provisions for the payment of prevailing wages subject to Section 21183(b); and by providing for a range of employment opportunities inclusive of high-wage, highly skilled jobs (see Appendix Q, *Economic and Fiscal Impact Analysis*, of this Draft EIR).

The Project Applicant submitted an application to the Governor for certification of the Project as an ELDP project and the application was subject to public review from December 19, 2017 through January 17, 2018. On April 27, 2018, the Governor certified the Project as an eligible project under AB 900. (See Appendix G-2 of this Draft EIR.) On May 24, 2018 the California Legislature concurred with the Governor's determination that the project meets the AB 900 criteria set forth in Public Resources Code Section 21178 et.seq. (Also included in Appendix G-2.)

Pursuant to PRC Section 21187, within 10 days of the Governor certifying the Project as a ELDP project, the City of Los Angeles issued a public notice on May 7, 2018 stating that the Project Applicant has elected to proceed under Chapter 6.5 of the PRC, which provides, among other things, that any judicial action challenging the certified of the EIR or the approval of the Project described in the EIR is subject to the procedures set forth in Sections 21185 to 21186. This notice is also included in Appendix G-2.

5. Public Review of the Draft EIR

The Draft EIR is subject to a 45-day review period during which the document is made available to responsible and trustee agencies and interested parties. In compliance with the provision of Sections 15085(a) and 15087(a)(1) of the State CEQA Guidelines, the City, serving as the Lead Agency: (1) has published a Notice of Completion and Availability (NOC/NOA) of a Draft EIR which states that the Draft EIR is available for review at the City's Planning Department (Environmental Analysis Section, 221 N. Figueroa Street, Suite 1350, Los Angeles, CA 90012); (2) has provided copies of the NOC/NOA and Draft EIR to the Los Angeles Central Library, Little Tokyo Branch Library, and Pico Union Branch Library; (3) has posted the NOC/NOA, the Draft EIR and Administrative Record consistent with ELDP requirements on the City's website (<http://www.lacity.org>); (4) has prepared and transmitted a NOC/NOA to the State Clearinghouse; (5) has sent a NOC/NOA to all property owners within 500 feet of the Project Site and within a 500-foot radius of the boundaries of the TFAR Donor Site (Los Angeles Convention Center) located at 1201 S. Figueroa Street; and (6) has sent a NOC/NOA to the last known name and address of all organizations and individuals who previously requested such notice in writing or attended public meetings about the Project. Proof of publication is available at the City of Los Angeles Department of City Planning, Major Projects, 221 N. Figueroa, 13th Floor, Los Angeles, CA 90012. The public review period commenced on September 26, 2019 and will end on November 12, 2019, for a total of 48 days.

Any public agency or members of the public desiring to comment on the Draft EIR must submit their comments in writing, by U.S. mail and/or email, to the following address prior to the end of the public review period:

Mail: Milena Zasadzien
City of Los Angeles
Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, California 90012

Email: milena.zasadzien@lacity.org

6. Final EIR

Upon the close of the public review period, the City will proceed to evaluate and prepare responses to all relevant oral and written comments received from public agencies and other interested parties during the public review period. The Final EIR will then be prepared. In compliance with Section 15132 of the State CEQA Guidelines, the Final EIR will consist of: (1) the Draft EIR or a possible revision of it; (2) comments received on the Draft EIR during the public circulation period; (3) a list of persons, organizations, and public agencies that commented; (4) City responses to significant environmental points raised in the review and consultation process; and (5) any other information added by the Lead Agency. Pursuant to Public Resources Code Section 21092.5 and State CEQA Guidelines Section 15088(b), the City shall provide a written response to a public agency on comments made by that public agency.

Chapter II

Project Description

1. Project Summary

The Project proposes an up to 751,777 square foot mixed-use high-rise development (the Project) on a 0.96-acre site located at the northwest corner of Olive Street and 11th Street (Project Site). Five existing single-story commercial buildings containing 35,651 square feet would be removed.

The Project would include a maximum of 794 residential units and 12,504 square feet of neighborhood serving commercial (restaurant/retail) uses.¹ A 61-story tower would sit atop a nine level podium structure (Podium) for a total of 70 floors above grade, up to 810 feet in height.² The Project would also have six subterranean levels. Approximately 100,652 square feet of open space would be provided for Project residents, and an additional 2,728 square feet of open space would be provided in a ground level public plaza with landscaping and public art (Plaza) for a total of 103,380 square feet of open space.

Open space and recreation facilities for residents would be located on the 8th Floor cut-out Terrace and larger 10th Floor Terrace, within mid-building cut-out areas on the upper floor levels and on a Tower Rooftop Terrace and within private balconies.

Vehicle access (ingress/egress) would be provided from one entrance along Olive Street, near the northern property line, and from two entrances from the alley between 11th Street and Olympic Boulevard. An on-site loading and move-in/out service area would also be accessed from the alley. Vehicle parking would be provided within six (6) subterranean parking levels and in eight (8) partial levels of above-grade parking within the Podium. The Project would provide up to 891 vehicle parking spaces and up to 310 bicycle parking spaces, per requirements of the Los Angeles Municipal Code (LAMC).

¹ The Project design has undergone minor modification since the circulation of the Project's Notice of Preparation. This modification includes a decrease in the expected amount of commercial space from the up-to maximum 12,504 square feet cited in the NOP to 10,947 square feet. The impacts calculated within this Draft EIR that are based on a maximum development of 12,504 square feet are slightly over stated and provide a conservative analysis. No other modifications have been made in amount of space allocated to Project uses that would affect the Impact analyses below.

² The height to the top of the residential development, i.e. to the Tower Roof Terrace, is 770 feet. The 810 feet is the height to the top of the rooftop screening.

2. Environmental Setting

a) Project Location and Surrounding Uses

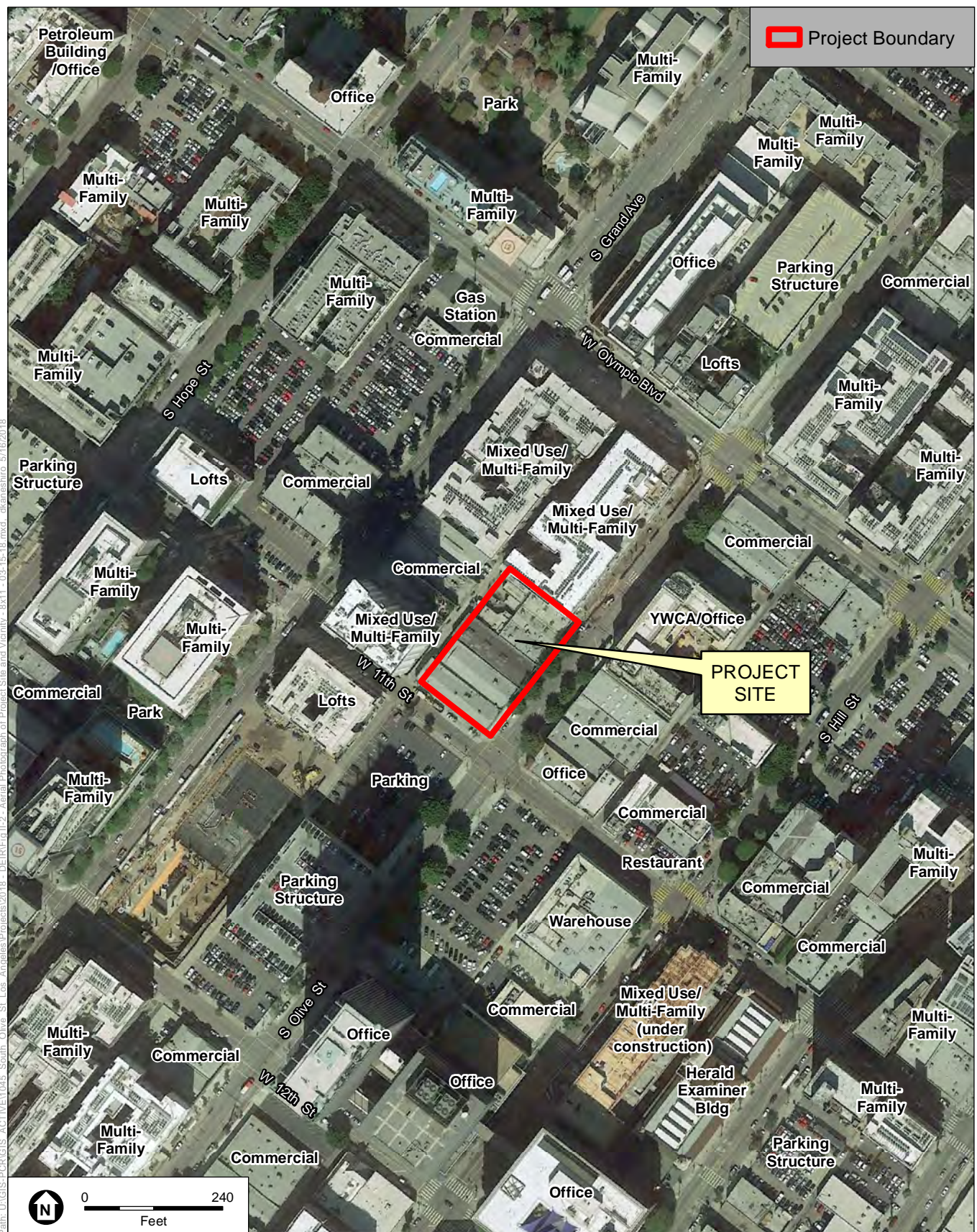
As indicated in **Figure II-1**, *Regional and Site Location Map*, the 0.96-acre (41,603 sf) Project Site is located at the northwest corner of Olive Street and W. 11th Street in the Downtown area and South Park community of the City of Los Angeles (City).

The South Park community of Downtown Los Angeles is one of nine districts in the Central City Community Plan area, and is representative of the Downtown Center with its concentration of government-related uses, high- and mid-rise office buildings, residential buildings, hotels, retail and restaurant uses, museums, and cultural districts. The South Park area includes a mix of residential, medical, commercial, and retail uses.

In the more immediate Project vicinity, as depicted on **Figure II-2**, *Aerial Photograph of Project Site and Vicinity*, the Project Site is located within the block that is bounded by Olive Street on the east, 11th Street on the south, Grand Avenue on the west and Olympic Boulevard on the north.³ The block is split by a south to north alley at midblock between Olive Street and Grand Avenue. The alley serves as the western boundary of the Project Site. Uses within the block that lie adjacent to the Project include a seven-story mixed-use development to the north, seven-story mixed-use development to the northwest (across the alley), and a two-story commercial building and 25-story mixed-use high-rise building to the west (across the alley).

Adjacent development across Olive Street to the east includes older one- and two-story commercial buildings; and up the street, the newer, seven-story Faye Washington Youth Empowerment Center. There is a surface parking lot located across 11th Street to the south. Surrounding development in a larger radius includes a large array of newer mixed-use development, and older commercial, office, residential and warehouse uses. Public oriented/school facilities within 1,000 feet of the Project Site include the LA Child Care and Development Council (daycare center), Los Angeles Unified School District Los Angelitos Early Education Center, and Grand Hope Park (a 2.5-acre park). The nearest historic buildings are separated from the Project Site by intervening development and include the Federal Reserve Bank of San Francisco Los Angeles Bank across Olympic Boulevard to the northeast; and the Joseph Basch Company Building, Mayan Theater, Belasco Theater and White Log Coffee Shop, all located southeast of the Project Site along Hill Street.

³ Streets in the Downtown area do not align along a true north-south axis. However, the streets are extensions of streets that lie long north-south and east-west axes within the greater City area. Unless otherwise dictated by contexts, the generally understood references of east, west, north and south will be used here.



SOURCE: Google Earth, 2016.

1045 Olive Project

Figure II-2
Aerial Photograph of Project Site and Vicinity

The Project Site is located approximately 0.27 miles (1,430 feet) east of the Figueroa Street Corridor, the focus of the MyFigueroa Streetscape project that is transforming the Figueroa Corridor into a multimodal street with improved transit, streetscape and landscaping features. The MyFigueroa Streetscape project extends eastward from Figueroa Street along 11th Street adjacent to the Project Site, ending at Broadway. Major uses located along Figueroa Street in the Project vicinity include LA LIVE, the Staples Center Arena, and the Los Angeles Convention Center.

The Project Site is served by a network of regional transportation facilities that provide access to the greater metropolitan area. It is located approximately 1,500 feet from the entrance to the Pico Boulevard Station that provides rail service to the Metro Blue and Expo Lines; and approximately 2,700 feet from the 7th Street/Metro Center Station that provides rail service to the Blue, Expo, Red and Purple Lines. It also lies adjacent to multiple bus and shuttle lines in the immediate vicinity; and it is located approximately 0.6 miles north of the Santa Monica Freeway (I-10) and 0.6 miles east of the Harbor Freeway (I-110).

b) Existing Site Conditions

As depicted in the certified ALTA/ACSM Land Title Survey included in the Project's entitlement drawings as Sheets A-003 and A-004, the Project Site constitutes 41,603 square feet in gross lot area and is currently occupied by five existing commercial buildings (covering 34,673 square feet of ground area, and containing 35,651 square feet of area inclusive of mezzanines), 3,424 square feet of paved parking lot area and 3,506 square feet of right-of-way and alley easement area.⁴ The net Project Site lot area, which subtracts out the ROW and easement areas, constitutes 38,097 square feet pursuant to the certified ALTA/ACSM Land Title Survey included in the Project's entitlement drawings as Sheets A-003 and A-004.

With Project implementation, 4,431 square feet of the Project Site would be dedicated to the City for sidewalks and alleys, leaving a development site of 37,172 square feet of buildable area. The size of the Project Site for calculating FAR is based on LAMC Section 14.5.3, which provides regulations that are applicable to Transit Area Mixed Use Projects, such as the Project, which implement Transfer of Floor Area (TFAR) provisions. Under these provisions of the LAMC, the lot area for calculating the FAR extends to the centerline of Olive Street, 11th Street and the alley, inclusive of dedications or easements that would be provided in the alley and public right of way. Based on this criterion, the lot area for calculating FAR is 57,829 square feet in size.

The five existing buildings are approximately one-story in height and are consistent with the older single story development in the Downtown area. There are no trees located on the Project Site; however, five street trees are located along the street-side edge of Olive

⁴ The Project Site is comprised of 10 street addresses (1033, 1035, 1039, 1041, 1045, 1047, 1049, 1053, 1055 and 1057 South Olive Street). It also contains six County Assessor Tax Parcels (APNs) that are used for assigning property tax assessment information (APNs: 5139-010-001, -002, -008, -010, -011).

Street; and three recently planted street trees are located along the street edge of 11th Street.

c) Existing Planning and Zoning

The Project Site is located within the Central City Community Plan Area, City Center Redevelopment Project Area, Central City and Downtown Parking Districts, Greater Downtown Housing Incentive Area, South Park II Business Improvement District, Central City Revitalization Zone, Los Angeles State Enterprise Zone and is subject to the Downtown Design Guide. The Project Site is designated by the Central City Community Plan as High Density Residential and is zoned [Q]R5-4D-O.

The R5 zoning designation permits the development of high density residential development, hotel uses, and limited commercial development. The “Q” Condition, pursuant to Ordinance No. 164,307, allows commercial uses to be included along with the residential development provided the floor area for the commercial uses does not exceed a 2:1 FAR. The Height District No. 4 permits a FAR of 13:1. However, the “D” limitation, pursuant to Ordinance No. 164,307, restricts the floor area to a maximum of 6:1 FAR unless additional floor area is permitted through a TFAR, in which case a 13:1 FAR is allowed. The Project qualifies for use of the TFAR provisions per Article 4.5 (Sections 14.5.1, et seq.) of the LAMC as it is a Transit Area Mixed Use Project, and is located within 1,500 feet of a fixed rail transit station. The “O” component of the zoning designation defines the Project Site as lying within a Supplemental Use District that allows oil drilling; and that provides regulations in LAMC Section 13.01 for such use.^{5, 6}

d) Qualifications under the Environmental Leadership Act of 2011

The Project qualifies for consideration under the Environmental Leadership Act of 2011 (AB 900, as amended by SB 743 (2013) and SB 734 (2016), which is codified in Sections 21178 – 21189.3 of the California Public Resources Code). This act was approved to encourage California’s economic recovery by providing expedited processing of judicial actions challenging the certification of an EIR or the approval of an Environmental Leadership Development Project (ELDP) for compliance with CEQA for development projects that are certified by the Governor as ELDP projects. The Project qualifies as an ELDP project, as it would meet the qualification requirements, inclusive of the following among others: it is a mixed use development on an urban infill site that would achieve LEED Gold certification (or better), maximize transit friendly features (resulting in a minimum 15 percent greater transportation efficiency), be ‘Net-Zero’ in

⁵ This Project does not propose oil drilling.

⁶ Planning designations and other pertinent information regarding the Project Site is provided in the City’s Zoning Information and Map Access System (ZIMAS). Parcel Profile Report: 1045 S. Olive Street, <http://zimas.lacity.org/>, accessed May 10, 2018.

carbon/greenhouse gas (GHG) emissions, and result in a minimum investment in California of \$100 million.

3. Statement of Project Objectives

Section 15124(b) of the State CEQA Guidelines states that a project description shall contain “a statement of the objectives sought by the proposed project.” In addition, Section 15124(b) of the State CEQA Guidelines further states that “the statement of objectives should include the underlying purpose of the project.”

The underlying purpose of the Project is to redevelop the underutilized Project Site with its mix of dated, partially vacant and limited value structures, with a high-density, mixed-use, high-rise development that provides a mix of residential and commercial uses that is designed to be architecturally significant, with transit- and pedestrian-oriented features.

In accordance with the State CEQA Guidelines, the Project objectives are as follows:

Objective 1: Employ smart growth strategies and maximize the utilization of the Project Site with a Transfer of Floor Area Ratio (TFAR) to provide high-density, high-rise housing and public benefits in South Park with accessibility to existing infrastructure and alternative transportation modes in a High Quality Transit Area/Transit Priority Area.

Objective 2: Provide infill housing in an employment rich, mixed-use area, improving the jobs/housing ratio of the Downtown area in accordance with state, regional and local laws and policies supporting the reduction of VMTs, air quality emissions, greenhouse gas emissions, including, but not limited to AB 32, SB 375, the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, and the City of Los Angeles’ Green New Deal (Sustainable City pLAn 2019).

Objective 3: Develop a mixed-use development with ground floor retail, public art and a publicly accessible plaza that enhances the quality of the pedestrian environment and that supports connectivity to shopping, restaurants and the activities occurring at nearby cultural, commercial and entertainment venues, including LA LIVE, Staples Center, and the Convention Center.

Objective 4: Further the General Plan Framework Element’s goal of enhancing the livability of neighborhoods by building an architecturally significant high-rise development in the South Park neighborhood that provides innovative design elements and distinctive architectural features, such as tower open space cut-outs, that will upgrade the quality of development and the visual character of the South Park neighborhood and that will add another interesting landmark feature to the developing Downtown skyline.

Objective 5: Create an environmentally sensitive development by incorporating sustainable and green building design and construction to promote resource conservation, including waste reduction, efficient water management techniques, and conservation of energy to achieve Leadership in Energy and Environmental Design (LEED) Gold certification.

Objective 6: Construct an economically viable development that provides short- and long-term employment opportunities, tax revenue for the City, and a substantial investment in Los Angeles.

4. Project Description

a) Development Program

The proposed development program for the Project is summarized in **Table II-1, Proposed Development Program**. A conceptual site plan showing the arrangement of ground level uses is illustrated on **Figure II-3, Ground Level Conceptual Site Plan**. The locations of the building components within the Project Site and the landscaped open space areas are shown in **Figure II-4, Building Locations and Landscape Plan**. A rendering of the Project and its surrounding setting is shown in **Figure II-5, Conceptual Project Rendering**. Details of the Project are shown in **Figure II-6, Selected Rendering Details**. Elevations of the building are shown on **Figure II-7, Conceptual 11th Street and Olive Street Elevations**.

**TABLE II-1
PROPOSED DEVELOPMENT PROGRAM**

Use	Size/Area
Project Site Area	
Existing Site (pre dedication)	41,603 sf
Site Area (post-dedication)	37,172 sf
Gross Buildable Area (to street centerline per Transit Area Mixed Use Criterion)	57,829 sf
Number of Floors	
	61 Tower Floors
	9 Podium Levels
	70 Total Above-Ground Floors
	6 Subterranean Parking Levels
Building Height	810 feet ^a
Development Program	
Residential Development	
Units	794 units
Floor Area	739,273 sf
Commercial Development – floor area	12,504 sf ^b
Floor Area for Calculation of FAR^c	751,777 sf
Floor Area Ratio (FAR)	13:1
Gross Building Area^c	1,343,338 sf
Open Space and Recreational Amenities	
Publicly-Accessible Plaza Area ^d	2,728 sf
Common Open Space (Exterior) for Project Residents	37,927 sf

Use	Size/Area
Common Open Space (Interior Activities) for Project Residents	23,025 sf
Private Balcony Space for Project Residents	39,700 sf
Total Open Space and Recreational Amenities^d	103,380 sf
Vehicle Parking	
Residential	878 spaces
Commercial	13 spaces
Total Vehicle Parking	891 spaces

^a The height to the top of the residential development, i.e. to the Tower Roof Terrace, is 770 feet. The 810 feet is the height to the top of the rooftop screening.

^b The Project design has undergone minor modification since the circulation of the Project's Notice of Preparation. This modification includes a decrease in the expected amount of commercial space from the up-to maximum 12,504 square feet cited in the NOP to 10,947 square feet. The impacts calculated within this Draft EIR that are based on a maximum development of 12,504 square feet are slightly over stated and provide a conservative analysis. No other modifications have been made in the amount of space allocated to Project uses that would affect the impact analyses below.

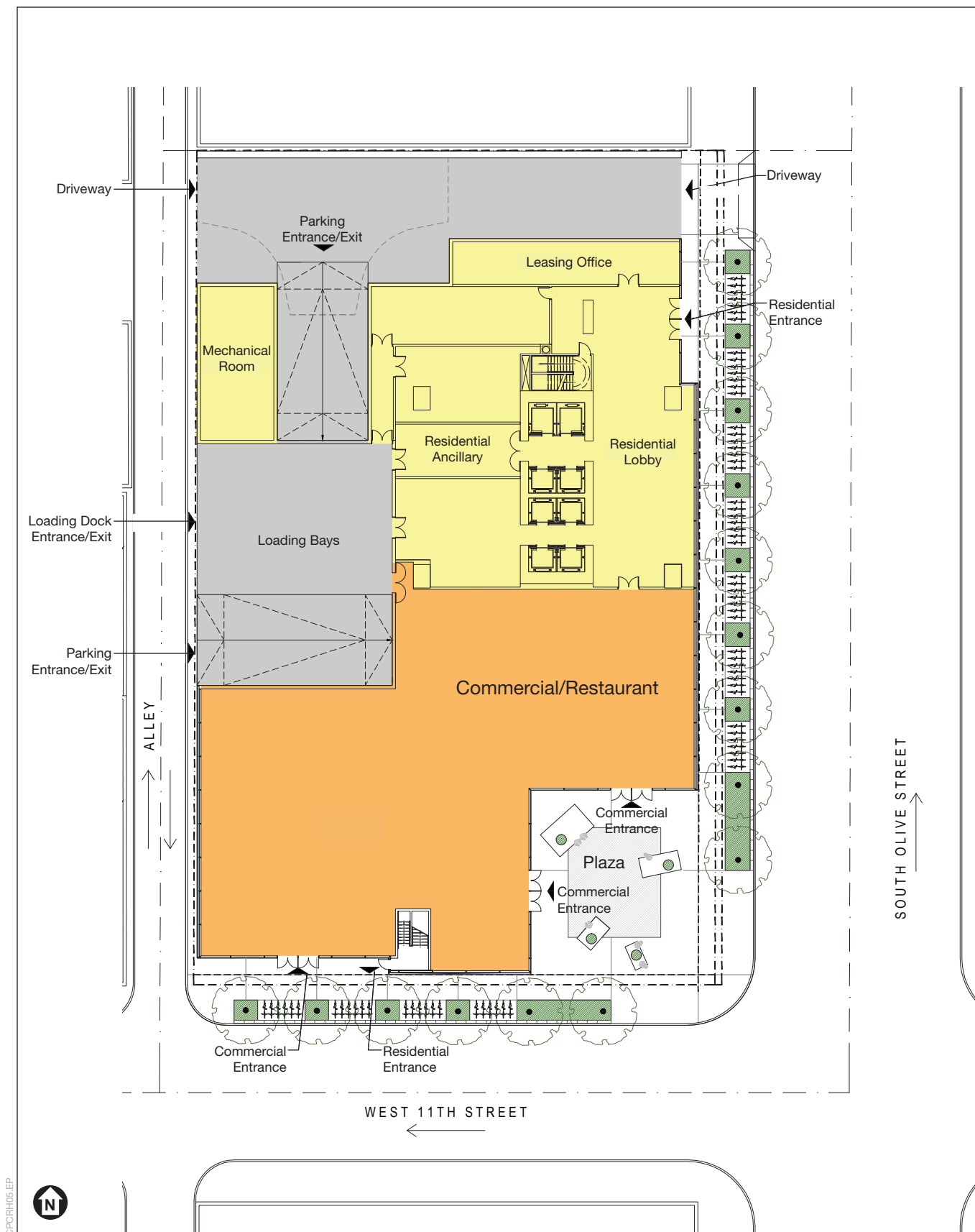
^c A Project's floor area for purposes of Calculating FAR does not include certain uses such as parking and some non-useable spaces such as mechanical rooms, stairways, shafts and exterior walls. (LAMC Section 12.03) The total amount of development inclusive of these building components is referred to as the "Gross Building Area."

^d The 2,728 sf of publicly accessible Plaza area is not credited against the LAMC open space requirements. For purposes of analysis of LAMC open space requirements the total amount of open space provided by the Project would be 100,652 sf.

SOURCE: Data in this table is taken from the architectural plans that are included with the Project application.

As illustrated in Figure II-3 and Figure II-6, the ground level is oriented around a Plaza located at the corner of Olive Street and 11th Street. The Plaza is a publicly accessible open space that widens sidewalks and also provides entries into the adjacent commercial uses. The Plaza would include streetscaping (including benches), landscaping and a public art display.

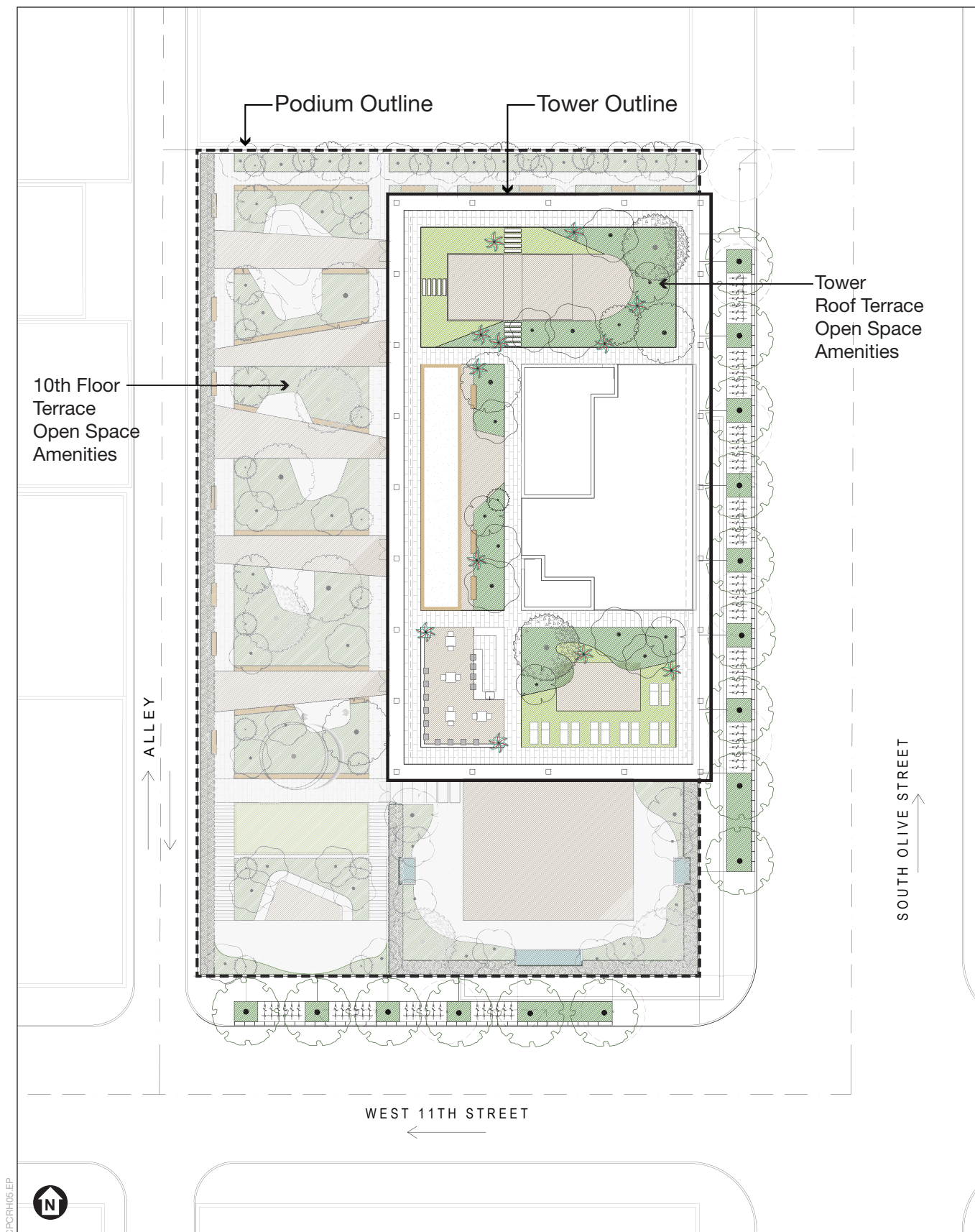
The Podium is shown in Figures II-5, II-6 and II-7. The Podium would be composed of above-ground parking, ground-level commercial spaces, and residential units along the perimeter adjacent to 11th Street and Olive Street on the fifth through ninth levels. At the top of the Podium, an 8th Floor cut-out terrace and a larger 10th Floor Terrace would include common open space areas for the residents' use, with a variety of tenant amenities such as lounge areas and an event deck. The tower would include an additional 61 levels above the Podium, covering only a portion of the development footprint on the Project Site (36 percent exclusive of balconies and 43 percent including the balconies). (See Figure II-4, Figure II-5 and Figure II-7.)



SOURCE: ODA New York, 2017; ESA, 2017

1045 Olive Project

Figure II-3
Conceptual Site Plan



SOURCE: ODA New York, 2018

1045 Olive Project

Figure II-4
Building Locations and Landscape Plan



GPCR-H05.EP

SOURCE: ODA New York, 2017

1045 Olive Project

Figure II-5
Conceptual Project Rendering



Plaza and Commercial at 11th Street and Olive Street

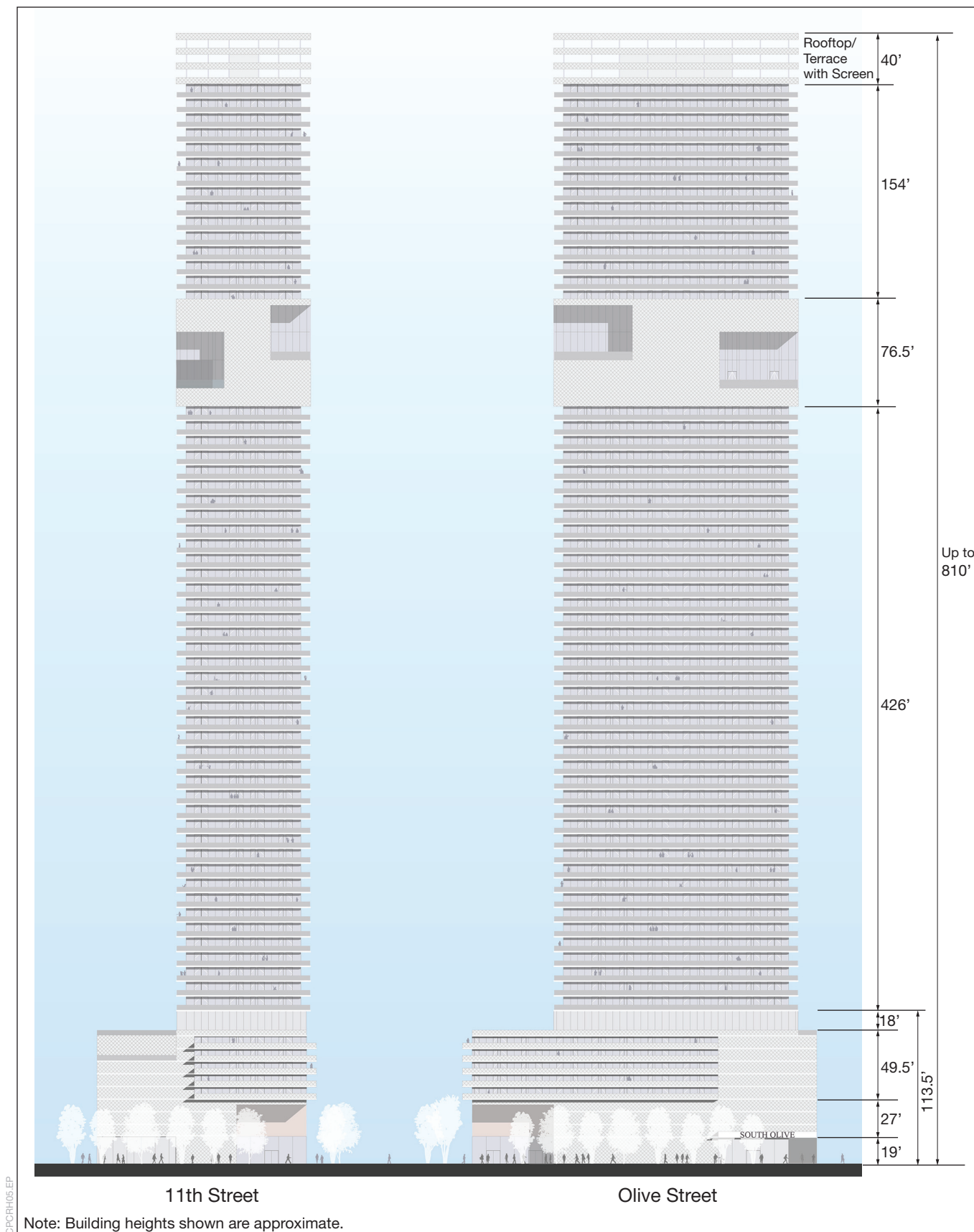


Commercial and Residential Entry on Olive Street



Nighttime - Residential Amenity Floors

GPCR-H05.EP



SOURCE: ODA New York, 2017

1045 Olive Project

Figure II-7
Conceptual 11th Street and Olive Street Elevations

c) Residential Development

The Project includes up to 794 residential dwelling units. The units would include a range of unit types to serve a broad section of the housing market including: studios, 1- and 2-bedroom units (with and without dens), and 3-bedroom units. The residential units would be mostly located within the residential tower. Approximately 40 units would be located along the perimeter of the top five levels of the Podium facing Olive Street and 11th Street.

c) Commercial Uses

The Project's 12,504 square feet of commercial (restaurant/retail) space would be located at the ground level. Access to the individual commercial units would be from 11th Street, Olive Street and the Plaza. It is expected that a substantial amount of the commercial area would be devoted to restaurant uses.⁷

d) Proposed Land Use and Zoning

The Project is consistent with existing Community Plan and Zoning designations. The Project Site land use designation and zone would remain High Density Residential and [Q]R5-4D-O. As allowed under the Project Site's land use and zoning designations, the Project would apply for a Transfer of Floor Area Rights (TFAR) for a Transit Area Mixed Use Project pursuant to LAMC Section 14.5.6. The transferred development density would be from the Los Angeles Convention Center (Donor Site) at 1201 S. Figueroa Street, a City-owned property. The Project, as a Receiver Site, would gain approximately 404,803 square feet of transferred floor area that would be added to the amount of development that would otherwise be allowed without the implementation of the TFAR. This base level amount of development is 346,974 square feet (6:1 FAR). The total floor area of 751,777 square feet would result in a Transit Area Mixed Use Project FAR of 13:1.

e) Design and Architecture

As shown in **Figures II-5 to II-7**, the Project is designed in a contemporary architectural style with abundant glazing, variations in materials, and massing of the building components to articulate the façade and provide visual interest. In addition, the design includes cut-out terraces on the rooftop of the 8th level of the Podium, and the upper levels within the Tower to reduce the perceived bulk of the building.

The ground level facades would be organized around the Plaza at the northwest corner of Olive Street and 11th Street, carrying down the cut-out motif on the upper stories to the street level, giving the ground floor further articulation. The Plaza would also provide

⁷ The analysis of environmental impacts for this Project conservatively assumes that all of the commercial space would be used for restaurant uses. This provides for conservative analyses as restaurant uses generate greater impacts than retail uses. For example, restaurant uses generate greater levels of vehicle trips and greater consumption of resources, such as water. Also, as noted above, the commercial space, subject to changes in the design of the Project, is now expected to not exceed 10,947 square feet, slightly less than analyzed in this Draft EIR, leading to slightly overstated, conservative impact conclusions.

decorative landscaping and art displays. The architectural treatments along the street facades would include a mix of pre-cast concrete paneling and glass that would provide varied textures while allowing highly visible interiors of the ground level restaurant/retail uses and residential lobby, consistent with the activated pedestrian milieu. The residential units along the edge of the Podium would provide horizontal contrast with the tower. The parking components of the Podium would be covered with mesh screening.

f) Open Space, Landscaping, and Public Art

The Project would provide 100,652 square feet of open space and would include a number of amenities for Project residents and visitors. The top of the 8th and 10th Floor Podium Terraces would contain residential amenities such as lounge areas and event areas; the cut-out mid-tower amenity areas would include a pool, spa and fitness center, as well as related uses such as lounge areas and community rooms; and the Tower Roof Terrace would include active and passive open space amenities.

The Project would improve the streetscape by providing widened sidewalks with new street trees, and parkway landscaping. The Project would also include a ground level public Plaza area, with 2,728 square feet of open space. The Plaza would include seating areas, with landscaping and art displays to provide respite to activate the northwest corner of Olive Street and 11th Street.

The Project would provide on-and off-site landscaping consistent with Downtown Design Guide, the requirements of the Bureau of Engineering, Urban Forest Division, and the MyFigueroa Streetscape project. The proposed landscaping programs would include such features as climbing ivy in the Plaza area and the addition of more than 500 new plantings to the Project Site. Of these, approximately 130 of the new plants would be canopy trees. Remaining planting would include native shrubs and perennials mixed with native ground cover. New landscaping would be provided along the street edges and throughout all of the Project's open space areas.

g) Access and Circulation, Parking, and Bicycle Amenities

As shown on Figure II-3, vehicle access (ingress/egress) would be provided from one entrance along Olive Street, near the northern property line and two entrances on the alley. An on-site loading and move-in/out service area would also be accessed from the alley near the center of the property.

Vehicle parking would be provided consistent with the Central City Parking Exception and Downtown Business District parking requirements and is proposed to be located within 6 subterranean levels and 8 levels above grade. The Project would provide up to 891 unbundled parking spaces, with approximately 878 spaces dedicated to residential parking and 13 spaces provided for commercial uses. Bicycle parking would also be provided consistent with the requirements of the LAMC.

h) Lighting and Signage

Project Site signage would include building identification for residential and commercial uses, wayfinding, and security markings. The Project's exterior lighting would be consistent with Section 8, Architectural Detail, of the Downtown Design Guide, which provides lighting standards to avoid adverse impacts and create an attractive lighting motif for the Downtown area. Consistent with Section 8, exterior lighting would be shielded to reduce glare and eliminate light being cast into the night sky. Security lighting would be integrated into the overall architectural and landscape themes for the Project.

The Project would also comply with LAMC lighting regulations that include approval of street lighting plans by the Bureau of Street Lighting; limited light intensity from signage to no more than three foot-candles above ambient lighting; and limited exterior lighting to no more than two foot-candles of lighting intensity or direct glare onto specified sensitive uses.

i) Site Security

The Project would provide a security program, 24 hours per day/seven days per week, to ensure the safety of its residents, commercial operations and Site visitors. Security features to assist in crime prevention efforts and to reduce the demand for police protection services would include secured building access/design to residential areas (electronic keys specific to each user); lighting of building entryways and Plaza areas; staff training in safety and sound security policies; 24-hour video surveillance; and trained 24-hour security personnel. Security personnel duties would include but not be limited to assisting residents and visitors with Site access; monitoring entrances and exits of buildings; managing and monitoring fire/life/safety systems; and patrolling the property.

j) Sustainability Features

The Project has been certified as an ELDP Project by the Governor's Office of Planning and Resources.⁸ To qualify as an ELDP Project, the Project is required to achieve LEED Gold certification, maximize transit friendly features (resulting in a minimum 15 percent greater transportation efficiency), and be 'Net-Zero' in carbon/GHG emissions. The Project would also comply with the City of Los Angeles Green Building Code, which builds upon and sets higher standards than those incorporated in the 2016 California Green Building Standards Code (CALGreen).

Specific design features would be incorporated into the Project to enhance energy efficiency and sustainability. Wraparound cantilevered balconies on every residential level have been designed to provide shade and minimize solar gain throughout the building. Further considerations regarding energy efficiency and sustainability include native plants and drip/subsurface irrigation systems, individual metering or sub metering

⁸ Copies of the Governor's certification and concurrence by the California Legislature are provided in Appendix G-2 of this Draft EIR.

for water use, leak detection systems, rainwater harvesting and provisions for electric vehicle charging.

k) Project Design Features

The above sections identify general characteristics of the Project upon which the analyses of this Draft EIR are based. In addition to these Project characteristics, specific design features are incorporated into the Project that relate to environmental considerations. These Project Design Features are identified in the analyses of Project impacts in Chapter IV of this EIR. They have been numbered for easy reference and inclusion in the Project's Conditions of Approvals. The Project Design Features are as follows:

(1) Aesthetics

AES-PDF-1: Construction Fencing: The Project's security fencing along the W. 11th Street, S. Olive Street, and the mid-block alley perimeters of the Project will be designed to screen views to the Project Site's ground levels during construction. The fencing shall have a minimum height of 8 feet; and the Applicant shall ensure through appropriate postings and regular visual inspections that no unauthorized materials are posted on temporary construction barriers or temporary pedestrian walkways, and that such temporary barriers and walkways are maintained in a reasonable manner throughout the construction period.

AES-PDF-2: Parking Shielding: Podium parking shall be shielded from adjacent areas with minimum 36-inch high baffling panels behind architectural screen meshing for aesthetic character as well as for light and sound attenuation.

(2) Air Quality

AQ-PDF-1: Green Building Features: The Project will be designed to achieve the equivalent of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification level for new buildings. The Project will demonstrate compliance with the LEED Gold Certification or equivalent by providing architectural and engineering documentation, building energy modeling simulations, and other supporting evidence consistent with USGBC accepted documentation standards. Pre-construction documentation that indicates the Project is designed to achieve the number of points required for LEED Gold Certification will be provided to the City prior to building permit issuance. Post-construction documentation that indicates the Project operates within the expected parameters to achieve the number of points required for LEED Gold Certification will be provided to the City after completion of commissioning activities. A summary of key green building and LEED measures are provided below:

- The Project will implement a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris.

- The Project will incorporate heat island reduction strategies for 50 percent of the site hardscapes or provide 100 percent structured parking and incorporate heat island reduction strategies, including but not limited to high-reflectance and vegetated roofs, for the Project roof areas.
- The Project shall include at least twenty (20) percent of the total code required parking spaces provided for all types of parking facilities, but in no case less than one location, 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 ampacity. Of the 20 percent EV Ready, five (5) percent of the total code required parking spaces shall be further provided with EV chargers to immediately accommodate electric vehicles within the parking areas. When the application of either the 20 percent or 5 percent results in a fractional space, round up to the next whole number. A label stating “EVCAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.
- The Project will promote alternatives to conventionally fueled automobiles by pre-wiring, or installing conduit and panel capacity for, electric vehicle charging stations for a minimum of twenty (20) percent of on-site parking spaces, of which the Project would install electric-vehicle charging for a minimum of five (5) percent of on-site parking.
- The Project will optimize building energy performance including, but not limited to, installing energy efficient appliances.
- The Project will reduce water consumption by 40 percent for indoor water and 50 percent for outdoor water compared to baseline water consumption. Water reduction strategies include, but are not limited to planting drought-tolerant/California native plant species, increasing irrigation system efficiency, incorporating alternative water supplies (e.g., stormwater retention for use in landscaping), and/or installing smart irrigation systems (e.g., weather-based controls).
- The Project will provide on-site recycling areas with containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers.
- The residential units within the Project will not include the use of natural gas-fueled fireplaces.

AQ-PDF-2: Construction Equipment Features: The Applicant will implement the following construction equipment features for equipment operating at the Project Site. These features will be included in applicable bid documents, and successful

contractor(s) must demonstrate the ability to supply such equipment. Construction features will include the following:

- During plan check, the Project representative will make available to the lead agency and the South Coast Air Quality Management District (SCAQMD) a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used during any of the construction phases. The inventory will include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each such unit's certified tier specification, Best Available Control Technology (BACT) documentation, and California Air Resources Board (CARB) or SCAQMD operating permit shall be provided on-site at the time of mobilization of each applicable unit of equipment to allow the Construction Monitor to compare the on-site equipment with the inventory and certified Tier specification and operating permit. Off-road diesel-powered equipment that will be used an aggregate of 40 or more hours during any portion of the construction activities associated with grading/excavation/export phase must meet the Tier 4 Final standards. Construction contractors supplying heavy duty diesel equipment greater than 50 horsepower will be encouraged to apply for SCAQMD Surplus Off-Road Opt-In for NOx (SOON) funds. Information including the SCAQMD website will be provided to each contractor which uses heavy duty diesel for on-site construction activities.
- Equipment such as tower cranes and signal boards must be electric or alternative-fueled (i.e., non-diesel). Pole power will be made available for use for electric tools, equipment, lighting, etc. Construction equipment such as tower cranes and signal boards must utilize electricity from power poles or alternative fuels (i.e., non-diesel), rather than diesel power generators and/or gasoline power generators. If stationary construction equipment, such as diesel- or gasoline-powered generators, must be operated continuously, such equipment must be located at least 100 feet from sensitive land uses (e.g., residences, schools, childcare centers, hospitals, parks, or similar uses), whenever possible.
- Alternative-fueled generators will be used when commercial models that have the power supply requirements to meet the construction needs of the Project are commercially available from local suppliers/vendors. The determination of the commercial availability of such equipment will be made by the City prior to the issuance of grading or building permits based on applicant-provided evidence of the availability or unavailability of alternative-fueled generators and/or evidence obtained by the City from expert sources such as construction contractors in the region.
- Alternative-fueled sweepers/scrubbers shall be used pursuant to SCAQMD Rule 1186.1.
- Contractors will maintain and operate construction equipment so as to minimize exhaust emissions. All construction equipment must be properly tuned and maintained in accordance with the manufacturer's specifications. The

contractor must keep documentation on-site demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications. Tampering with construction equipment to increase horsepower or to defeat emission control devices must be prohibited.

- Construction activities must be discontinued during second-stage smog alerts. A record of any second-stage smog alerts and of discontinued construction activities as applicable will be maintained by the Contractor on-site.

(3) Noise

NOISE-PDF-1: The Project will not use impact pile drivers and will not allow blasting during construction activities.

NOISE-PDF-2: Signs will be posted at Project truck loading areas prohibiting idling for more than 5 consecutive minutes.

NOISE-PDF-3: Amplified sound in outdoor open space areas on the site shall be prohibited.

(4) Police Protection

POL-PDF-1: Construction Security Measures. During construction, on-site security measures will be incorporated, specifically: an eight-foot tall construction security fence, with gated and locked entry; controlled access, multiple security surveillance cameras, and 24-hour private construction security services.

POL-PDF-2: Provision of Project Diagrams to LAPD: Prior to the issuance of a building permit, the Applicant will provide the Los Angeles Police Department (LAPD) Central Area Commanding Officer with a diagram of the Project Site, including access routes, gate access codes, and additional information, to facilitate potential LAPD responses once the Project is operating.

POL-PDF-3: On-Site Operational Security Measures. On-site security measures during Project operation will incorporate strategies from Crime Prevention through Environmental Design (CPTED) and include:

- Secured building access/design to residential areas (electronic keys specific to each user);
- Lighting of building entryways and Plaza areas;
- Staff training in safety and sound security policies;
- 24-hour video surveillance;
- Trained 24-hour security personnel (providing assistance to residents and visitors with Site access; monitoring entrances and exits of the building; managing and monitoring fire/life/safety systems; and patrolling the Project Site, including parking areas).

- Installation and utilization of an extensive security camera network, with approximately 40-50 cameras throughout the underground and above-grade parking structure; the elevators; the common and amenity spaces; the lobby areas; and the rooftop and ground level outdoor open spaces;
- Maintaining all security camera footage for at least 30 days, and providing such footage to LAPD as needed; and
- Maintaining approximately 30-40 staff on-site, including 24 hours at the lobby concierge desk and within the car valet areas, with designated staffers dedicated to monitoring the Project's security cameras and directing staff to locations where any suspicious activity is viewed.

(5) Transportation and Traffic

TRAF-PDF-1: Construction Management Plan: A Construction Traffic Management Plan shall be prepared for approval by the City prior to the issuance of any construction permits, to incorporate the measures identified below, as well as a Worksite Traffic Control Plan specifying the details of any sidewalk or lane closures. The Worksite Traffic Control Plan will be developed by the Applicant, and will identify all traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. The Worksite Traffic Control Plan would minimize the potential conflicts between construction activities, street traffic, bicyclists and pedestrians. The plan will be reviewed and approved by the Los Angeles Department of Transportation (LADOT) prior to commencement of construction and will include, but not limited to, the following elements as appropriate:

- Maintain access for land uses in the vicinity of the Project site during construction.
- Schedule construction material deliveries to off-peak periods to the extent possible.
- Minimize obstruction of traffic lanes on Olive Street and 11th Street adjacent to the Project Site.
- Organize site deliveries and the staging of all equipment and materials in the most efficient manner possible, and on-site where possible, to avoid an impact to the surrounding roadways,
- Coordinate truck activity and deliveries to ensure trucks do not wait to unload or load at the site and impact roadway traffic. If needed, utilize an organized off-site staging area. Off-site staging areas shall be identified at an area that would avoid impacts to on-street parking or neighborhoods.
- Control truck and vehicle access to the Project Site with flagmen.
- Sidewalk access on Olive Street and 11th Street will be maintained during construction through the use of covered protective walkways. A Worksite

Traffic Control Plan will be prepared for approval by the City, to facilitate pedestrian and traffic and movement, in order to minimize any potential conflicts.

- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the Project Site and neighboring businesses.
- Parking for construction workers will be provided off-site in off-street locations. Parking will not be allowed on streets in the vicinity of the Project.

TRAF-PDF-2: Pedestrian Safety Plan: The Applicant shall plan construction and construction staging so as to maintain pedestrian access, including Safe Routes to Schools, on adjacent sidewalks throughout all construction phases. The Applicant will maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding, etc.) from work space and vehicular traffic and overhead protection, due to sidewalk closure or blockage, at all times. Temporary pedestrian facilities will be adjacent to the Project Site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility. Covered walkways will be provided where pedestrians are exposed to potential injury from falling objects. The Applicant will keep sidewalks open during construction except when it is absolutely required to close or block the sidewalks for construction staging. Sidewalks will be reopened as soon as reasonably feasible, taking construction and construction staging into account. In the event that multiple projects are under construction in the area simultaneously that would affect the same sidewalk(s), the Applicant shall coordinate with LADOT to ensure pedestrian safety along the sidewalks is maintained in the immediate vicinity around the Project Site.

(6) Water Supply

WS-PDF-1: Water Conservation Features: The Project shall implement the following water conservation features that are in addition to those required by codes and ordinances.

- High Efficiency Toilets with a flush volume of 1 gallon per flush, or less
- Urinal flush volumes of 1.0 gallons per minute, or less
- Showerheads with a flow rate of 1.2 gallons per minute, or less
- ENERGY STAR Certified Residential Clothes Washers - Front-loading or Top-loading with Integrated Water Factor of 3.2 or less and capacity of 4.5 cubic feet
- ENERGY STAR Certified Residential Dishwashers - compact with 3 gallons/cycle or less
- Domestic Water Heating System located close proximity to point(s) of use
- Individual metering and billing for water use for every residential dwelling unit and commercial unit

- Tankless and on-demand Water Heaters
- Water-Saving Pool Filter
- Pool/Spa recirculating filtration equipment
- Pool splash troughs around the perimeter that drain back into the pool
- Install a meter on the pool make-up line so water use can be monitored and leaks can be identified and repaired
- Reuse pool backwash for irrigation
- Leak Detection System for swimming pools and Jacuzzi
- Drip/Subsurface Irrigation (Micro-Irrigation)
- Micro-Spray
- Proper Hydro-zoning/Zoned Irrigation - (groups, plants with similar water requirements together)
- Artificial Turf
- Drought Tolerant Plants - approximately 70 percent of landscaping
- Water Conserving turf - approximately 30 percent of total landscaping

I) Anticipated Construction Schedule

Project construction would take place in a single phase anticipated to begin in 2019 with Project buildout projected for 2023. To provide for the new development, approximately 80,520 cubic yards of soil would be excavated, all of which is expected to be exported off site.

5. Requested Permits and Approvals

Discretionary entitlements, reviews, and approvals required for implementation of the Project would include, but not be limited to, the following:

- Pursuant to LAMC Section 14.5.6 approval of a **Transfer of Floor Area Rights** (TFAR) for a Transit Area Mixed-Use Project, from the Los Angeles Convention Center (Donor Site) at 1201 S. Figueroa Street, a City-owned property, to the Project Site (Receiver Site) for the approximate amount of 404,803 square feet of floor area;
- Pursuant to LAMC Section 12.24-W.1 approval of a **Master Conditional Use Permit** (MCUP) for the sale and dispensing of a full-line of alcoholic beverages for on-site consumption within up to ten establishments;
- Pursuant to LAMC Section 16.05 **Site Plan Review** for a project that would result in an increase of 50 or more dwelling units;
- **Approval/Clearance from CRA/LA** for conformance with the City Center Redevelopment Plan;

- Pursuant to LAMC Section 12.21-A.2 provision of a **Zoning Administrator Interpretation (ZAI)** as follows:
 - An interpretation that all parts of the Project’s wrap-around balconies, including corner areas, do not fit the definition of Floor Area under LAMC Section 12.03, even if some or all of such areas do not count toward meeting the Project’s open space requirement and
 - An interpretation of the LAMC to clarify that the covered exterior open space provided within the Project’s open space building cutout features are not considered Floor Area and meet the LAMC definition of “Common Open Space.” If the building cutout areas are not counted as Common Open Space, there be an interpretation that these spaces qualify as “Recreation Rooms” under LAMC Section 12.21-G.2(a)(4)(i), to allow the areas to be counted towards interior Common Open Space;
- Pursuant to LAMC Section 17.01 and Section 17.15 approval of **Vesting Tentative Tract Map 74531**, for the merger and resubdivision of the Project Site to create one master ground lot, 17 airspace lots, 794 residential condominium units and up to 12,504 square feet of commercial space;
- Pursuant to LAMC Section 12.21-A.4(p) permission to provide residential parking at a ratio of approximately 1.1 parking space per residential dwelling unit in consideration of its proximity to jobs, services, and public transit, in lieu of the 2.25 parking spaces per residential condominium unit provided by Advisory Agency policy memo AA-2000- 1, in conjunction with the Vesting Tentative Tract Map;
- Approval of a **Haul Route** in conjunction with the Vesting Tentative Tract Map;
- Pursuant to LAMC Section 41.40 approval of a **Board of Police Commissioners Permit** for a continuous concrete pour occurring outside of 9:00 p.m. and 7:00 a.m.; and
- Other administrative approvals and permits as deemed necessary by the City to implement the Project including but not limited to the following: demolition, excavation, shoring, grading, foundation, building, street tree removal, and tenant improvements.

Chapter III

General Description of Environmental Setting

Section 15125 of the State *CEQA Guidelines* requires that an EIR include a description of the existing environment. This chapter provides a general overview of the environmental setting for the Project. Detailed information on existing conditions is provided for each environmental topic studied in Chapter IV, Environmental Impact Analysis. This chapter also provides an overview of cumulative projects that are considered in evaluating cumulative impacts.

1. Overview of Environmental Setting

a) On-Site Conditions

The Project Site is located at the northwest corner of Olive Street and W. 11th Street in the Downtown area and South Park community of the City of Los Angeles (City). It is 41,603 square feet in size inclusive of 34,673 square feet of ground area that is occupied by five existing commercial buildings, 3,424 square feet of paved parking lot area and 3,506 square feet of right of way and alley easement area.

The five existing buildings are approximately one-story in height and were constructed in the early 1900's and have historically been used for a variety of manufacturing and commercial activities. These buildings are similar to older single-story development in the Downtown area. As of publication of the Notice of Preparation for the Draft EIR in December 21, 2017, approximately 14,653 square feet of floor area were used for manufacturing uses and 5,171 square feet of floor area were utilized for commercial uses. The remainder of the space was vacant/unoccupied. The Project Site is entirely developed to the sidewalk edge with no on-site landscaping. However, five street trees are located along the edge of Olive Street and three street trees are located along 11th Street.

The Project Site is served by a network of regional transportation facilities that provide access to the greater metropolitan area. It is located approximately 1,360 feet from the entrance to the Pico Boulevard Station; approximately 2,700 feet from the 7th Street/Metro Center Station; and adjacent to multiple bus and shuttle lines in the immediate vicinity. The Project Site is located approximately 0.6 miles north of the Santa Monica Freeway (I-10) and 0.6 miles east of the Harbor Freeway (I-110).

The Project Site is located within a designated Transit Priority Area, i.e., an area within one-half mile of a major transit stop that is existing or planned.¹ The mixed-use Project is also located within 1,500 feet of a fixed rail transit station, thus qualifying as a Transit Area Mixed Use Project pursuant to Article 4.5 (Section 14.5.1, et seq.) of the LAMC) and qualifying for a 13:1 FAR.

b) Surrounding Land Uses

The South Park community of Downtown Los Angeles is one of nine-districts in the Central City Community Plan area, and is representative of the Downtown Center with its concentration of government-related uses, high- and mid-rise office buildings, residential buildings, hotels, retail uses, museums, and cultural districts. The South Park area includes a mix of residential, medical, commercial, and retail uses; with a substantial concentration of housing located next to and over retail and commercial developments.

Land uses to the north of the Project Site are primarily multi-family residential with ground-floor retail or restaurant uses. The seven-story Oakwood Olympic & Olive apartment building, is located directly to the north of the Project Site. Within the same block directly northwest of the Project Site is the seven-story, 182-unit, 1000 Grand By Windsor apartment building. Land uses directly to the east of the Project Site are older one- and two-story commercial buildings and the newer, seven-story Faye Washington Youth Empowerment Center. The land uses directly to the south of the Project Site, across W. 11th Street are a surface parking lot, bounded at its south edge and a multi-story parking structure. The 20-story Ten50 residential mixed-use building is located directly to the west of the Project Site. None of these near-by building are historic buildings. Surrounding development in the larger vicinity includes a large array of newer mixed use development, and older commercial, office, residential and warehouse uses.

The Project Site is also located approximately 0.27 miles (1,430 feet) east of the Figueroa Street Corridor, the focus of the MyFigueroa Streetscape project to improve the Figueroa Corridor into a multimodal street with transit, streetscape and landscaping features². The MyFigueroa project extends eastward from Figueroa Street along 11th Street adjacent to the Project Site, ending at Broadway.

Figueroa Street in the Project vicinity is also the focus of regional activity including LA LIVE, an entertainment, hotel, and residential complex that is a Citywide focus of entertainment activity; the Staples Center Arena, a multipurpose sports arena which is home to the Los Angeles Clippers, Los Angeles Kings, Los Angeles Lakers and Los Angeles Sparks; and the Los Angeles Convention Center, which regularly features conventions, trade shows, and exhibitions.

¹ City of Los Angeles, Department of City Planning, Zoning Information File No. 2451; <https://files.alston.com/files/docs/ZI%202451-TPA-Aesthetics-and-Parking.pdf> Accessed July 2, 2018.

² City of Los Angeles, About MyFigueroa, <https://myfigueroa.com/about>, accessed August 12, 2019..

c) Land Use Plans

The Project Site is located within the Central City Community Plan Area, City Center Redevelopment Project, Central City and Downtown Parking Districts, Greater Downtown Housing Incentive Area, Greater South Park Business Improvement District, Los Angeles State Enterprise Zone and is subject to the Downtown Design Guide. Regional Plans that are applicable to the Project Site include: the Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); the South Coast Air Quality Management District's 2016 Air Quality Management Plan (AQMP); and Metro's 2010 Congestion Management Plan.

d) Existing Conditions

For more detailed descriptions of existing conditions that are specific to each of the environmental issues analyzed in this Draft EIR, see Chapter IV, Section IV.A through Section IV.O.

2. Cumulative Projects

CEQA requires that EIRs analyze cumulative impacts. As defined in the State CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. State CEQA Guidelines Section 15130(a) states that an EIR must discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(a)(3). A project has "cumulatively considerable" or significant cumulative impacts, when its incremental effects "are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects," as defined in Section 21083. The State CEQA Guidelines (Section 15130(b)(1)(A) and (B)) explain that either of the following methods are necessary to provide an adequate discussion of significant cumulative impacts:

- A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts; or
- A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant. However, an EIR should not discuss impacts that do not result in part from the Project evaluated in the EIR. Furthermore, when the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR must briefly indicate why the cumulative impact is not significant and is not discussed in

further detail in the EIR. A lead agency may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if a project is required to implement or fund its fair share of a mitigation measures designed to alleviate the cumulative impact. A lead agency must identify facts and analysis supporting the lead agency's conclusion that the contribution is less than cumulatively considerable.

In addition, State CEQA Guidelines Section 15130(b) indicates that the analysis of cumulative impacts shall reflect the severity of the impacts and the likelihood of occurrence, but the discussion need not provide as great of detail as provided for the effects attributable to the project alone. Instead, the discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of the other projects that do not contribute to the cumulative impact.

Cumulative study areas are defined based on an analysis of the geographical scope relevant to each particular environmental issue. Therefore, the cumulative study area for each individual environmental impact issue may vary. For example, a cumulative land use impact generally may only affect the compatibility of uses within the vicinity of a project site, while a cumulative air quality impact may affect the entire air basin.

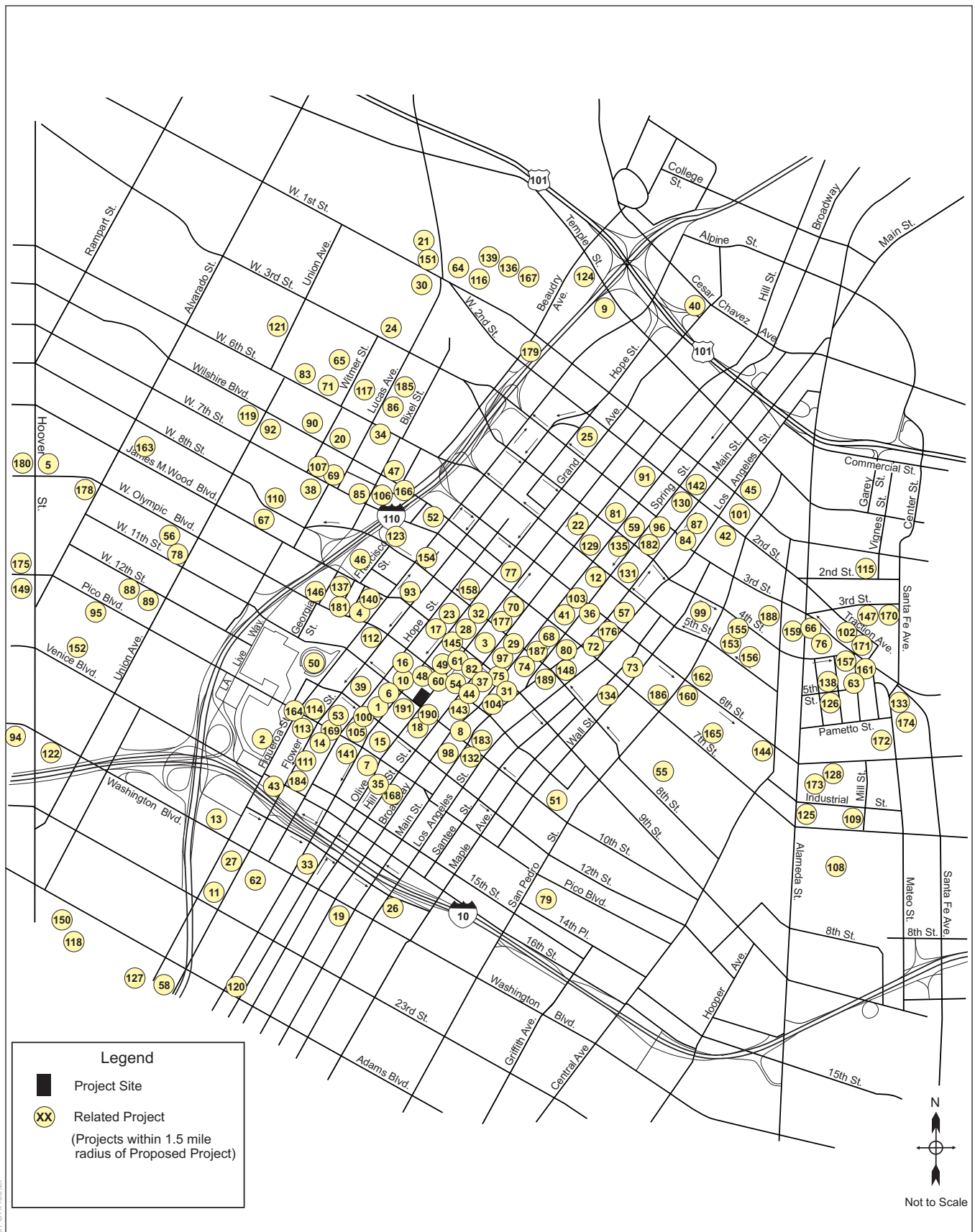
The analyses in this EIR are primarily based on the List Method for evaluating cumulative effects. A list of related projects was provided by the City of Los Angeles Department of Transportation (LADOT) and Department of City Planning. The list of related projects was initially prepared at the time that the Project's NOP was circulated, the established baseline condition and environmental setting. Pursuant to Section 15125(a)(1) of the State CAQA Guidelines: "Generally, the lead agency should describe physical conditions as they exist at the time the notice of preparation is published, ..." This guideline has been generally adhered to in the preparation of the related projects list. Notwithstanding, Section 15125 (a)(1) allows jurisdictions the prerogative to reference changed conditions that would occur at the time a project becomes operational to provide a more accurate and understandable picture of a projects impacts. While the list developed at the NOP was prepared has been relied upon, pursuant to Section 15125(a)(1), the City has chosen to supplement this list with two additional new development projects (related project numbers 190 and 191 in the list below) and to revise the development program for a third related project (related project 18). The new information regarding these projects was presented to the City subsequent to the preparation of the NOP. These related projects are unique in terms of the size, scope, and locations, in that they are large-scale projects that are located either directly across from the Project Site on 11th Street at the intersection of Olive Street and 11th Street, and at the intersection of 11th Street and Hill Street, one half block to the east. This new information presented after the issuance of the NOP identified a significant change to the future environmental setting immediately adjacent to the project site, and therefore, the Lead Agency, in its discretion, included two new related projects and modified one related project in order to incorporate this new

information which would provide a more accurate and understandable picture of a projects impacts.

The locations of the 195 identified related projects are shown in **Figure III-1, *Related Projects Map***; and a list of the related projects with their addresses and proposed uses is provided in **Table III-1, *Related Projects List***. The related projects are located within an approximately 1.5-mile radius from the Project Site.

Although the projects listed in Table III-1 serve as the primary basis for evaluation of cumulative impacts, the basis may vary among certain environmental issues, as the geographic contexts of certain issue areas may vary. Some environmental topics whose cumulative impacts are analyzed at the regional level, e.g. the provision of some utilities, take into account regional projections included in SCAG's RTP/SCS. The Traffic analysis also takes into account regional growth beyond the limits of the related projects area reflected in Figure III-1 by incorporating an ambient growth factor to traffic volumes. A growth rate of 1.0 percent per year was applied for this ambient traffic growth based on historical trends and in conjunction with LADOT. The existing traffic counts were therefore adjusted upward by a total of 1.0 percent a year for six years to represent the ambient growth to the Project opening year.

The cumulative analyses for each environmental issue, including a discussion regarding the identification of relevant related projects and/or use of regional projections are provided in their applicable sections in Chapter IV, *Environmental Impact Analysis*, of this Draft EIR.



SOURCE: The Mobility Group, 2019

1045 Olive Project

Figure III-1
Related Projects Map

**TABLE III-1
RELATED PROJECTS LIST**

No.	Project	Address	Use	Size	
1	Apartments	1247 S Grand Ave.	Apartments	115	du
			Commercial	4,610	sf
2	1400 S Figueroa Residential Project	1400 S Figueroa	Apartments	106	du
3	Mixed-Use	820 S Olive St.	Apartments	522	du
			Retail	4,500	sf
4	Variety Arts Project	940 S Figueroa St.	Office	3,295	sf
			Restaurant	10,056	sf
			Bar	5,119	sf
5	Apartments	1011 S Park View St.	Apartments	108	du
6	DTLA South Park - Site 1	1120 S Grand Ave.	High-rise Apt	666	du
			Commercial/Retail	20,690	sf
7	DTLA South Park - Site 4	1230 S Olive St.	Apartments	360	du
			Commercial	6,400	sf
8	Mixed-Use (Herald Examiner)	146 W 11 th (11 th St. / Broadway)	Apartments	391	du
			Office	39,725	sf
		1111 S Broadway	Retail	49,000	sf
9	Mixed-Use	327 N Fremont Ave (Fremont / Temple)	Apartments	600	du
			Retail	30,000	sf
10	Restaurant Project	1036 S Grand Ave.	Restaurant	7,149	sf
11	2222 S Figueroa	2222 S Figueroa St.	Condominium	1,063	du
			Retail	18,000	sf
12	LA Plaza Cultural Village	527 N Spring St.	Apartments	345	du
		555 N Broadway	Retail	23,000	sf
			Specialty Retail	21,000	sf
			Restaurant	11,000	sf
13	Mixed-Use	720 W Washington Blvd.	Apartments	105	du
			Retail	2,650	sf
14	Onyx Apartment	Pico Blvd. b/w Flower and Grand	Apartments	419	du
		1306 S Hope St.	Retail	42,000	sf

No.	Project	Address	Use	Size	
15	G12 Project	North of Pico b/w Grand and Olive	Apartments	640	du
		1200 S Grand Ave.	Retail	45,000	sf
16	Mixed-Use	1050 S. Grand Ave. (Grand Ave. / 11 th St.)	Condominiums	151	du
			Retail	3,472	sf
			Restaurant	2,200	sf
17	Embassy Hotel	831 S Grand Ave.	Hotel	183	Rooms
			Restaurant	3,084	sf
			Theater	12,780	sf
			Banquet	4,773	sf
			Lounge	2,163	sf
			Bar	11,840	sf
18	11th & Hill Project	1115 S Hill St.	Condominiums	528	du
			Restaurant	6,071	sf
19	Mixed Use	SOLA Village	Condominiums	900	du
		1900 S Broadway	Apartments (Rental)	550	du
			Hotel	210	Rooms
			Retail/Commercial	143,100	sf
			Office	180,000	sf
			Gallery/Museum	17,600	sf
			Gym	8,000	sf
20	New Medical Office Building (Good Samaritan Hospital)	Wilshire Blvd/Witmer St.	Imaging center, pharmacy, surgical suites, and physician offices	56,450	sf
21	Charter High School	1552 W Rockwood St.	Charter High School	600	Students
22	Park/Fifth Project	427 W 5 th St.	Condominiums	660	du
		437 S Hill St.	Restaurant	13,742	sf
23	9th & Flower Project	830 S Hope St.	Apartments	525	du
			Retail	6,200	sf
24	Mixed Use	1435 W 3 rd St.	Apartment	122	du
			Retail	3,500	sf

No.	Project	Address	Use	Size	
25	Grand Avenue Project	Parcel Q and Parcel W - Bounded by 1 st St., Grand Avenue, Hill St., & Upper 2nd St.	Condominiums	1,648	du
			Apartments	412	du
		Parcel L/M-2 - Bounded by GTK Way, Hope St., & Upper 2 nd St.	Retail	225,250	sf
			Supermarket	53,000	sf
		237 S Grand Ave.	Restaurant	67,000	sf
			Health Club	50,000	sf
			Event Facility	250	Seats
			Hotel	275	Rooms
			Office	681,000	sf
26	Washington Bl Opportunity MU (Mercy Hsg)	E Washington Blvd/Los Angeles St.	Residential Units	230	du
		220 E Washington Blvd.	Specialty Retail/Restaurant	19,000	sf
			Renovate Residential Units	32	du
27	Mixed Use	2100 S Figueroa	Condominium	291	du
			Retail	7,134	sf
28	9th / Olive Project	840/888 S. Olive St.	Apartments	303	du
			Retail	9,680	sf
			Restaurant	1,500	sf
29	Broadway Trade Center	801 S Broadway	Office	400,000	sf
			Hotel	150	Rooms
30	Beverly + Lucas Project	1430 W Beverly Blvd.	Apartments	157	du
31	Broadway Mixed	955 S Broadway	Apartments	201	du
			Retail	6,000	sf
32	801 S Olive Street Project	801 S Olive St.	Apartments	363	du
			Retail	2,500	sf
			Restaurant	10,000	sf

No.	Project	Address	Use	Size	
33	Mixed-Use Building	233 W Washington Blvd.	Apartments	160	du
			Retail	24,250	sf
34	Bixel & Lucas Project	1102 W 6 th St.	Apartments	649	du
			Retail	39,996	sf
35	Mixed-Use	215 W 14 th St.	Condominiums	154	du
			Retail	10,700	sf
36	SB OMEGA	601 S Main St.	High-rise Condo	452	du
			Retail	25,000	sf
37	Hill Mixed	920 S Hill	Apartments	239	du
			Retail	5,400	sf
38	Witmer Project	1329 W. 7 th St. (7 th / Witmer)	Condominiums	94	du
			Retail	2,000	sf
39	1133 Hope Street Project	1133 Hope St.	Condominiums	208	du
			Restaurant	5,029	sf
40	700 Cesar Chavez Ave Project	700 Cesar Chavez	Apartment	300	du
			Retail	8,000	sf
41	Spring St. Hotel	633 S Spring	Hotel	176	Rooms
			Conference Space	1,200	sf
			Restaurant	8,400	sf
			Bar	5,290	sf
42	Wakaba LA	Southwest corner of San Pedro and 2 nd	Apartments	240	du
			Retail	16,000	sf
43	1600 S Figueroa	1600 S Figueroa St.	Condominium	202	du
			Apartments	134	du
			Hotel	250	Rooms
44	Mixed-Use	928 S Broadway	Apartments	662	du
			Retail	47,000	sf
			Live/Work	11,000	sf
			Office	34,824	sf
45	Los Angeles Street Civic Center Project	150 N Los Angeles St.	Government Office	712,500	sf
			Retail	35,000	sf

No.	Project	Address	Use	Size	
			Child Care Facility	2,500	sf
46	Metropolis Mixed-Use	851 S. Francisco St. (8 th St. / Francisco St.)	Hotel	480	Rooms
		899 S. Francisco St.	Condominiums	836	du
			Office	988,225	sf
			Retail	46,000	sf
47	Mixed-Use Development	1027 W. Wilshire Project (Wilshire / St. Paul St.)	Condominiums	402	du
			Retail	7,428	sf
48	Residential Project	1027 S Olive St.	Apartments	100	du
49	Embassy Tower	848 S Grand Ave.	Hi-rise Condominiums	420	du
			Market	38,500	sf
50	LASED Entertainment District (Excluding completed development to date) (Includes Oceanwide, Circa and JW Marriott Ext. Projects)	Figueroa St. / 11 th St.	Residential	1,264	du
			Educational	95,706	sf
			Retail	148,583	sf
			Restaurants	60,000	sf
			Health Club	12,309	sf
			Sport Bar	6,000	sf
			Hotel	183	Rooms
			Office	367,300	sf
			Production Studio	298,500	sf
			Convention Center Expansion	250,000	sf
51	City Market Project	San Pedro Street b/w 9 th St and 12 th St.	University	1,400	Students
			Shopping Center	176,733	sf
		1057 S San Pedro St.	Cinema	744	Seats
			Apartments	945	du
			Hotel	210	Rooms
			Retail	224,862	sf
			Office	294,641	sf

No.	Project	Address	Use	Size	
52	Wilshire Grand Redevelopment Project	930 W Wilshire Blvd.	Hotel Rooms	560	Rooms
		900 W Wilshire Blvd.	Residential Units	100	du
			Office	1,500,000	sf
			Retail/Restaurant	275,000	sf
53	Flower (1212) Mixed - Use	1212 W Flower	Apartments	730	du
			Retail/Restaurant	10,500	sf
			Office	70,465	sf
54	Olympic / Hill Project	Northwest corner of Olympic / Hill	Apartments	300	du
			Retail	14,500	sf
		301 W Olympic Blvd.	Restaurant	8,500	sf
55	785 S Towne	785 S Towne Ave.	Joint Living and Work Quarters	60	du
56	1700 W Olympic Hotel	1700 W Olympic	Hotel	160	Rooms
57	Mixed-Use	534 S Main St.	Apartments	160	du
			Retail	18,000	sf
			Restaurant	3,500	sf
			Fast-food Restaurant	3,500	sf
58	USC Student Housing	505 W 31 st St.	Apartments	73	du
59	400 S Broadway Mixed-Use Project	400-416 Broadway	Apartments	450	du
			Retail	6,904	sf
			Lounge	5,000	sf
60	1001 S Olive	1001 S Olive St.	Apartments	225	du
			Restaurant	5,000	sf
61	Olive & Olympic	Northeast corner of Olive & Olympic	Apartments	263	du
		960 S Olive St.	Restaurant	14,500	sf
62	L.A Trade Tech College - 5-Year Master Plan	400 Washington Blvd. (Washington Blvd. / Flower St.)	5-year Master Plan Project	21,300	Enrollment

No.	Project	Address	Use	Size	
63	Palmetto	Northeast corner of Palmetto & Sealton	Apartments	310	du
			Commercial	11,375	sf
			Production Space	11,736	sf
64	Mixed Use	1335 W 1 st St.	Apartments	102	du
			Retail	3,514	sf
65	Residential	459 S Hartford Ave.	Apartments	94	du
66	330 S Alameda	330 S Alameda	Apartments	186	du
			Commercial	22,340	sf
67	Mixed-Use Project	1150 W Wilshire	Apartment	80	du
			Restaurant	4,589	sf
68	Mixed Use	737 S Spring	Apartments	320	du
			Pharmacy	25,000	sf
69	Apartments	1218 W Ingraham St.	Apartments	90	du
70	Foreman and Clark Building	400,402 W 7 th St, 701, 715 S Hill St.	Apartments	165	du
			Bar	11,902	sf
			Restaurant	14,032	sf
71	Apartments	740 S Hartford St.	Apartments	80	du
72	Cecil Hotel Reno	640 S Main St.	Hotel	299	Rooms
			Apartments	301	du
73	Clinic	649 S Wall St.	Medical Office	66	employee
			Assisted Living	55	beds
74	Garland Building	740 S Broadway	Apartments	47	du
75	Northeast Tower	215 W 9 th St.	Condominiums	210	du
			Retail	9,000	sf
76	400 S Alameda Hotel	400 S Alameda St.	Hotel	66	Rooms
			Restaurant	2,130	sf
			Retail	840	sf
77	Hotel + Retail	649 S Olive St.	Hotel	241	Rooms
78	Charter School (K-5)	1633 W 11 th St.	School	460	Students
79	Residential	810 E Pico Blvd	Retail	181,620	sf
80	Mixed Use	732 S Spring St.	Apartments	400	du
			Pharmacy/Drug Store	15,000	sf

No.	Project	Address	Use	Size	
81	Mixed Use	340 S Hill	Apartments	428	du
			Retail	6,700	sf
82	Hill Mixed	940 S Hill	Apartments	232	du
			Retail	14,000	sf
83	Condominiums	742 S Hartford Ave.	Condominiums	58	du
84	Budokan of Los Angeles	237-249 S Los Angeles St.	Sports Complex	43,453	sf
85	Mixed Use	1145 W 7 th St.	Condominiums	126	du
			Apartments	100	du
			Retail	7,200	sf
86	Sapphire Mixed Use	1111 W 6 th St.	Apartments	369	du
			Retail	18,600	sf
			Quality Restaurant	2,200	sf
			Coffee Shop	1,200	sf
87	Vibiana Lofts	225 S Los Angeles St.	Condominiums	300	du
			Retail	3,400	sf
88	Laborers Local 300 Headquarters	2005 W Pico Blvd.	Office	30,300	sf
89	Pacific Charter Elementary School	1700 W Pico Blvd.	School	450	Students
90	Valencia Project	1501 Wilshire Blvd.	Apartments	218	du
			Retail	6,100	sf
			Other	1,500	sf
91	Retail / Restaurant	201 S Broadway	Retail and Restaurant	27,765	sf
92	Legal Aid Foundation of LA	1550 W 8 th St.	Office	33,957	sf
93	Apex Phase II	700 W 9 th St.	Condominiums	341	du
			Retail	11,687	sf
94	Pharmacy / Drug Store	1302 W Washington Blvd.	Other	16,572	sf
95	Charter High School	1929 W Pico Blvd.	School	480	Students
96	Medallion Phase II	300 S Main St.	Apartments	471	du
			Restaurant	27,780	sf

No.	Project	Address	Use	Size	
97	Alexan South Broadway	850 S Hill St.	Retail	5,190	sf
			Apartments	300	du
			Restaurant	3,500	sf
98	Proper Hotel	1106 S Broadway	Retail	3,500	sf
			Hotel	148	Rooms
			Restaurant	17,452	sf
99	Catalina Building	443 S San Pedro St.	Live/Work	78	du
100	1201 S Grand	1201 S Grand Ave.	Condominiums	126	du
101	Mixed Use	118 S Astronaut Onizuka St.	Apartment	77	du
102	Mixed Use	360 S Alameda St.	Apartment	52	du
			Restaurant	2,400	sf
			Creative Office	6,900	sf
103	Brooks Building	644 S Broadway	Apartments	30	du
			Bar	2,500	sf
104	950 S Broadway	950 S Broadway	Apartments	30	du
			Retail	7,500	sf
105	Grand Residence	1229 S Grand Ave.	Condominiums	161	du
			Restaurant	2,085	sf
106	Hotel & Apartments	675 S Bixel St.	Apartments	425	du
			Hotel	126	Rooms
			Retail	4,874	sf
107	Mixed-Use	1235 W 7 th St.	Condominiums	303	du
			Retail	5,959	sf
108	Mixed-Use Project	1800 E 7 th St.	Apartments	122	du
			Office	13,600	sf
109	1745 E 7 th St	1745 E 7 th St.	Apartments	57	du
			Commercial	6,000	sf
110	1322 Linwood Apts.	1322 W Linwood Ave.	Apartments	45	du
111	Mixed-Use	1334 S Flower St.	Apartments	188	du
			Retail / Restaurant	10,096	sf
112	LUXE Hotel Mixed-Use	1020 S Figueroa St.	Condo	650	du
			Hotel	300	Rooms
			Restaurant	40,000	sf

No.	Project	Address	Use	Size	
			Retail	40,000	sf
113	Mixed-Use	1400 S Flower St.	Apartments	147	du
			Retail	6,921	sf
114	Fig + Pico Hotel	Northeast corner of Figueroa St. & Pico Blvd.	Hotel	1,162	Rooms
			Retail	13,145	sf
115	Mixed-Use Project (Mostly private club)	929 E 2 nd St.	Retail	41,019	sf
			Other	63,893	sf
116	Apartments	1300 W Court St.	Apartments	43	du
117	Urban View Lofts Project	495 S Hartford	Apartments	220	du
118	Child Care	3014 S Royal St.	Child Care Facility	7,997	sf
119	1930 Wilshire MU	1930 Wilshire Blvd.	Apartments	478	du
			Theater	850	Seats
			Classroom	50	Students
			Hotel	220	Rooms
120	Mixed-Use	2528 S Grand Ave.	Apartments	296	du
			Retail	5,000	sf
121		425 S Union Ave.	Apartments	32	du
122	Medical Office	1122 W Washington Blvd.	Office	60,000	sf
123	Mixed-Use	945 W 8 th St.	Condominium	781	du
			Retail	6,700	sf
124	Ferante	1000 W Temple St.	Apartments	1,500	du
			Retail	30,000	sf
125	Mixed-Used	668 Alameda St.	Apartments	475	du
			Office	43,000	sf
			Specialty Retail	9,000	sf
			Restaurant	17,000	sf
			Supermarket	15,000	sf
126	1100 E 5th St (Mixed- Use)	1100 E 5 th St.	Apartment	213	du
			Retail	14,495	sf
			Arts & Production Space	14,495	sf

No.	Project	Address	Use	Size	
127	Figueroa Hotel	3101 S Figueroa St.	Hotel	275	Rooms
			Bar	1,178	sf
128	6th & Alameda Mixed-Use	1206 6 th St.	Apartments	1,736	du
			Office	253,514	sf
			Community- Serving Commercial	127,610	sf
			Art Space	22,429	sf
			Hotel	514	Rooms
			School	300	Student
129	5th & Hill Center MU	333 W 5th St.	Condominiums	80	du
			Hotel	200	Rooms
			Restaurant	5,000	sf
			Bar	22,500	sf
130	Tribune Media's DTLA Tower	232 West 2 nd St.	Condominiums	107	du
			Office	534,044	sf
			Retail	7,200	sf
131	433 S Main St	433 S Main St.	Condominiums	196	du
			Retail	5,300	sf
			Restaurant	900	sf
132	Mixed-Use	1100 S Main St.	Apartments	379	du
			Other	25,810	sf
133	Mixed Use	520 S Mateo St.	Apartments	600	du
			Restaurant	15,000	sf
			Retail	15,000	sf
			Office	30,000	sf
134	Southern California Flower Market Project	755 S Wall St.	Apartment	323	du
			Office	53,200	sf
			Retail	4,400	sf
			Other	4,420	sf
			Other	125	Persons
135	Hellman / Banco Building	354 S Spring St.	Apartments	212	du
136		1301 W Colton St.	Apartments	29	du

No.	Project	Address	Use	Size	
137	Downtown LA Hotel	926 W James M Wood Blvd.	Hotel	247	Rooms
138	Arts District Center (Mixed-Use)	1101 E 5 th St.	Apartments	228	du
			Retail	23,000	sf
			Office	27,860	sf
			Hotel	149	Rooms
			Other	56,100	sf
139	1316 Court & 1323 Colton Apts	1316 W Court St.	Apartments	122	du
140	Figueroa Centre	911 S Figueroa St.	Condominiums	200	du
			Hotel	220	Rooms
			Retail	44,080	sf
			Restaurant	50,000	sf
141	Mixed-Use	1323 Grand Ave.	Apartments	284	du
			Retail	6,300	sf
142	Times Mirror Square	100 S Broadway	Apartments	1,127	du
			Office	285,088	sf
			Supermarket	50,000	sf
			Quality Restaurant	22,200	sf
			High Turnover Restaurant	53,389	sf
143	Mixed-Use	1000 S Hill St.	Apartments	498	du
			Retail	8,707	sf
144	Mixed-Use	601 S Central Ave.	Apartments	236	du
			Retail	12,000	sf
145	845 S Olive & 842 Grand MU	845 S Olive St.	Apartments	208	du
			Retail	810	sf
			Other	1,620	sf
146	Olympia Mixed-Use	1001 W Olympic	Apartments	1,367	du
			Retail	20,000	sf
			Other	20,000	sf
147	Mixed-Use	806 E 3 rd St.	Bar/Lounge	3,047	sf
			Restaurant	7,720	sf
			Retail	6,171	sf

No.	Project	Address	Use	Size	
148	Mixed-Use	755 S Los Angeles St.	Retail	32,400	sf
			Office	65,000	sf
			Restaurant	4,000	sf
149	2250-2270 W Pico Blvd Hotel	2250 W Pico Blvd.	Hotel	125	Rooms
150	USC Children's Creative Learning Center	2716 S Severance St.	Other	9,955	sf
151	Apartments	101 N Glendale Blvd.	Apartments	55	du
152		1420 Bonnie Brae St.	Apartments	29	du
153	Mixed-Use	609 E 5 th St.	Apartments	151	du
154	8th & Fig	744 S Figueroa St.	Apartments	438	du
			Retail	3,750	sf
			Restaurant	3,750	sf
155	Affordable Housing Development	508 E 4 th St.	Apartments	41	du
156	Residential	713 E 5 th St.	Apartments	51	du
157	Mixed-Use	401 Hewitt St.	Office	255,514	sf
			Retail	4,970	sf
			Other	9,940	sf
158	8th, Grand & Hope Tower	754 S Hope St.	Apartments	409	du
			Retail	7,329	sf
159	Mixed-Use	333 Alameda St.	Apartments	994	du
			Retail	99,300	sf
160	19-story Affordable Housing Skid Row	600 S San Pedro St.	Affordable Housing	303	du
			Retail	19,907	sf
161	Hewitt & 4th MU	940 E 4 th St.	Apartments	93	du
			Office	6,000	sf
			Retail	14,248	sf
162	Affordable Housing Skid Row	552 S San Pedro St.	Affordable Housing	378	du
			Apartments	4	du
			Retail	1,758	sf
			Office	4,410	sf

No.	Project	Address	Use	Size	
			Dining Room/Flex Space	5,932	sf
163	2005 James M Wood Hotel	2005 W James M Wood Blvd.	Hotel	100	Rooms
164	1300 Figueroa Hotel	1300 S Figueroa St.	Hotel	1,024	Rooms
165		656 S Stanford Ave.	Apartments	82	du
166	Mixed-Use	1018 W Ingraham St.	Apartments	37	du
			Retail	1,890	sf
167	Apartments	1246 W Court St.	Apartments	54	du
168	14th St/Hill St (DTLA) MU	1340 S Hill St.	Apartments	235	du
			Retail	5,250	sf
			Other	4,000	sf
169		1219 S Hope St.	Hotel	75	Rooms
170	Santa Fe Freight Yard Redevelopment	950 E 3 rd St.	Apartments	635	du
			Retail	30,062	sf
171	Mixed-Use (Coca Cola)	963 E 4 th St.	Office	78,600	sf
			Retail	25,000	sf
			Restaurant	20,000	sf
172	Retail	555 S Mateo St.	Retail	153,000	sf
173	Camden Arts Project	1525 Industrial St.	Apartments	344	du
			Office	21,413	sf
			Restaurant	6,084	sf
174	Restaurant	500 S Mateo St.	Restaurant	12,882	sf
175	Apartments	1255 E Elden Ave.	Apartments	103	du
176	Mixed-Use	550 S Main St.	Apartments	159	du
			Retail	23,000	sf
177	Freehand Hotel	416 W 8 th St.	Hotel	226	Rooms
			Retail	8,000	sf
178	Assisted Living	1030 S Lake St.	Assisted Living	338	Beds
			Senior Housing	34	du
179	Beaudry Ave & 2nd St MU	130 S Beaudry Ave.	Apartments	230	du
			Other	9,000	sf

No.	Project	Address	Use	Size	
180	Olympic & Hoover Mixed-Use	2501 W Olympic Blvd.	Apartments	173	du
			Retail	36,180	sf
181	Olympic Tower Project MU	815 W Olympic Blvd.	Hotel	373	Rooms
			Condominiums	374	du
			Retail	65,074	sf
			Conference Center	10,801	sf
			Office	33,498	sf
182	Hotel	361 S Spring	Hotel	315	Rooms
183	Harris Building Office Conversion	11th St & Main St.	Office	52,000	sf
184	Mixed-Use	1410 S Flower St.	Apartments	152	du
			Retail	1,184	sf
185	Mixed-Use	1322 W Maryland St.	Apartments	47	du
			Retail	760	sf
186	Apartments	655 San Pedro St.	Apartments	81	du
187	Fashion District Tower	222 E 7 th St.	Apartments	452	du
			Commercial	13,655	sf
188		605 E 4 th St.	Restaurant	3,798	sf
189	716 S Spring	716 S Spring	Restaurant	6,208	sf
190	DTLA South Park Project	1120 S Olive St.	Apartments	713	du
	Mack Urban Site 2		Shopping Center	7,125	sf
			Restaurant	7,125	sf
191	DTLA South Park Project	1105 S Olive St.	Apartments	537	du
	Mack Urban Site 3		Shopping Center	3,794	sf
			Restaurant	3,794	sf
TRANSIT IMPROVEMENTS					
192	Metro Regional Connector	Metro Little Tokyo/Arts District Station to Metro 7 th St./Metro Center Station	Provide continuous service between Metro Blue, Expo, Red and Purple Lines and connectors to other rail lines with three new transit stations		

No.	Project	Address	Use	Size
193	MyFigueroa	Figueroa St. between 7 th St. & 41 st St., 11 th St. between Figueroa St. & Broadway, and Martin Luther King Jr. Blvd. between Figueroa St. & Vernon Ave.	Convert Figueroa St., 11th St., and Martin Luther King Jr. Blvd. to provide complete multimodal streets that better serve the needs of pedestrians, bicycles and transit riders, while still accommodating drivers	
194	Los Angeles Streetcar	Broadway between 1 st St. & 11 th St., 11 th St. between Figueroa St. & Broadway, Figueroa St. between 11 th St. & 7 th St., 7 th St. between Figueroa St. & Hill St., Hill St. between 7 th St. & 1 st St., and 1 st St. between Hill St. & Broadway	Enhance mobility and transit circulation and support the growth and revitalization of downtown.	
195	7 th Street Improvement Project	7 th St. between SR 110 and Olive St.	Streetscape improvements including sidewalk enhancements, better integration of transportation modes, intersection improvements, street lighting, and wayfinding.	

Notes:

du = dwelling units

sf = square feet

SOURCE: LADOT and Department of City Planning

IV. Environmental Impact Analysis

IV.A. Aesthetics

1. Introduction

Senate Bill (SB) 743, codified within the California Environmental Quality Act (CEQA) at Public Resources Code (PRC) Section 21099, states that “Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area (TPA) shall not be considered significant impacts on the environment.” (PRC Section 21099(d) (1)).

This state law supersedes the aesthetic impact thresholds in the 2006 City of Los Angeles CEQA Thresholds Guide (L.A. CEQA Thresholds Guide), including those established for aesthetics, obstruction of views, shading, and nighttime illumination. The related City of Los Angeles Department of City Planning Zoning Information (ZI) File No. 2452 provides further instruction concerning the definition of transit priority projects and that “visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City’s CEQA Threshold Guide shall not be considered an impact for infill projects within TPAs pursuant to CEQA.”

As described in Chapter II, *Project Description*, the Project meets the criteria of PRC 21099, as the Project proposes a mixed-use residential development on an infill site located within a City-designated TPA and, as such, any potential aesthetic impacts associated with the Project would not be considered significant.

The aesthetic impact analysis in this EIR is included to discuss what aesthetic impacts would occur from the Project if PRC Section 21099(d) was not in effect. As such, nothing in the aesthetic impact discussion in this EIR shall trigger the need for any CEQA findings, CEQA analysis, or CEQA mitigation measures in regards to the Project’s impacts on aesthetics.

While evaluation of the Project’s physical impacts associated with aesthetics is not required in this EIR and is provided for informational purposes only, the limitation of aesthetic impacts pursuant to PRC Section 21099 does not include impacts to historic or cultural resources. Such impacts are evaluated pursuant to CEQA in Section IV.C, *Cultural Resources*, of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

(1) State

On September 27, 2013, Governor Brown signed SB 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under CEQA for several categories of development projects including the development of infill projects in transit priority areas. The bill adds to the CEQA Statute, Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, and in particular, PRC Section 21099. Pursuant to Section 21099(d)(1): “Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.”

Pertinent definitions applicable to PRC Section 21099(a) and the Project include:

- “Infill site” means a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.
- “Transit priority area” means an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.
- “Major transit stop” is defined by PRC Section 21064.3 to mean a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

Further provisions of SB 743 provide that this legislation “does not affect, change, or modify the authority of a lead agency to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers provided by other laws or policies (PRC Section 21099(d)(2)(A)), and that aesthetic impacts do not include impacts on historical or cultural resources (Section 21099(d)(2)(B)).

(2) Local

(a) City of Los Angeles

(i) General Plan Framework Element

The citywide *General Plan Framework Element* (General Plan Framework), adopted in December 1996 and readopted in August 2001, establishes the conceptual basis for the City’s General Plan. The General Plan Framework provides direction regarding the City’s vision for growth and includes an Urban Form and Neighborhood Design chapter to guide

the design of future development. Although the General Plan Framework does not directly address the design of individual neighborhoods or communities, it embodies broad neighborhood design policies and implementation programs to guide local planning efforts. The General Plan Framework also clearly states that the livability of all neighborhoods would be improved by upgrading the quality of development and improving the quality of the public realm (Objective 5.5).

Chapter 5 of the General Plan Framework, *Urban Form and Neighborhood Design*, establishes a goal of creating a livable city for existing and future residents with interconnected, diverse neighborhoods. “Urban form” refers to the general pattern of building heights and development intensity and the structural elements that define the City physically, such as natural features, transportation corridors, activity centers, and focal elements. “Neighborhood design” refers to the physical character of neighborhoods and communities within the City.¹

(ii) *Central City Community Plan*

The Project Site is located within the South Park neighborhood of the Central City Community Plan (Community Plan).² South Park is recognized to be a mixed-use community with a large concentration of housing. The Community Plan is one of the 35 community plans established throughout the City that, collectively, comprise the Land Use Element of the City’s General Plan and that implement the policies of the General Plan Framework. These community plans include, among other provisions, guidelines regarding the appearance of development and the arrangement of land uses. Chapter V, Urban Design, of the Central City Community Plan includes policies for the development of the Downtown Design Guide, discussed below. The purpose of the urban design subsection specific to the South Park is to create a major open space focus for this residential neighborhood with an established network of well-landscape streets, mini-parks and mid-block paseos in order to create a garden city environment. Downtown Design Guide

The *Downtown Design Guide*, a component of the Community Plan (Chapter V, *Urban Design*) and incorporated into Subsection 12.22-A.30 of the Los Angeles Municipal Code (LAMC),³ provides guidance for creating a livable and more sustainable Downtown community.^{4,5} As discussed in the Community Plan, a function of the Downtown Design

¹ City of Los Angeles, General Plan Framework Element, Chapter 5, August 2001, <https://planning.lacity.org/cwd/framwk/chapters/05/05.htm>. Accessed on January 16, 2018

² City of Los Angeles, Central City Community Plan, January 8, 2003, <https://planning.lacity.org/complan/central/ccypage.htm>. Accessed on April 3, 2018.

³ Amended by Ordinance No. 181,557 in 2011.

⁴ In 2009, the City Planning Commission approved a Downtown Design Guide that tailored the principles of the Walkability Guidelines and Citywide Design Guidelines to the Downtown setting. In 2017, the Planning Commission updated the Downtown Design Guide to reflect changes in the Downtown setting, refine its provisions and to provide new guidance regarding the implementation of sustainability design features. As such, the 2017 Downtown Guide “... is the official guide [emphasis added] to development within the Downtown Los Angeles Area....”

⁵ City of Los Angeles Downtown Design Guide, June 2017, <https://planning.lacity.org/Urbanization/DwntwnDesign/TableC.pdf>

For projects requiring a separate approval process under the Municipal Code (including requests for transfer of floor area (LAMC Section 14.50)), strict conformance with the design standards is mandatory unless: (1) an alternative approach, as discussed above, is approved, or (2) the decision-maker grants an entitlement, such as an Adjustment, allowing deviation from the Design Guide. Findings regarding compliance with the Downtown Design Guide must be based on standards and conformity with the overall intent and purpose of the Design Guide.⁶

Sponsored by the Los Angeles Department of Transportation (LADOT), the MyFigueroa Streetscape Project is a four-mile long streetscape project that includes W. 11th Street, between Figueroa Street and Broadway Street.⁷ The purpose of the MyFigueroa Streetscape Project is to transform the Figueroa Corridor both visually and physically into a complete multimodal network that serves the needs of pedestrians, bicyclists, transit riders, and drivers. Visual improvements include the provision of new street trees, landscaped area and street art. In the Project Site area, 11th Street has been converted into a one-way westbound street, designed to accommodate both private vehicles and streetcars as part of the Downtown LA Streetcar's proposal, with on-street parking provided on the south side of the street, and widened sidewalks with planting and seating. Proposed landscaping is intended to turn 11th Street into a “scenic, green linear park.”⁸

Lighting is regulated by various Chapters within the LAMC.⁹ Applicable regulations for the Project Site include the following:

⁹ City of Los Angeles Planning and Zoning Code, [http://library.amlegal.com/nxt/gateway.dll/California/lapz/municipalcodechapteriplanningandzoningco/chapterigeneralprovisionsandzoning/article2specificplanning-zoningcomprehen?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:lapz_ca\\$sanc="http://www.cityoflosangeles.org](http://library.amlegal.com/nxt/gateway.dll/California/lapz/municipalcodechapteriplanningandzoningco/chapterigeneralprovisionsandzoning/article2specificplanning-zoningcomprehen?f=templates$fn=default.htm$3.0$vid=amlegal:lapz_ca$sanc=)

- Chapter 1, Article 7, Sec17.08 C. Plans for street lighting shall be submitted to and approved by the Bureau of Street Lighting for subdivision maps.
- Chapter 1, Article 4.4, Section 14.4.4. No sign shall be arranged and illuminated in a manner that will produce a light intensity of greater than three foot-candles above ambient lighting, as measured at the property line of the nearest residentially zoned property.
- Chapter 9, Article 3, Sec 93.0117(b). No exterior light may cause more than two foot-candles of lighting intensity or generate direct glare onto exterior glazed windows or glass doors on any property containing residential units; elevated habitable porch, deck, or balcony on any property containing residential units; or any ground surface intended for uses such as recreation, barbecue or lawn areas or any other property containing a residential unit or units.

b) Existing Conditions

(1) Scenic Views/Vistas

The L.A. CEQA Thresholds Guide addresses potential impacts of a new development project on views; views being defined as “... visual access to, or the visibility of, a particular sight from a given vantage point or corridor.” The City definition takes into account both “focal views” and “vistas.” “‘Focal views’ focus on a particular object, scene, setting, or feature of visual interest; ‘panoramic views’ or [scenic] vistas, provide visual access to a large geographic area, for which the field of view can be wide and extend into the distance.” “Examples of panoramic views might include an urban skyline, valley, mountain range, the ocean or other water bodies.”¹⁰

The Project is located in Downtown Los Angeles, which provides an urban skyline that is considered a component of a scenic vista for passers-by and viewers from locations throughout the Los Angeles basin and surrounding hillside areas. The San Gabriel Mountains also provide scenic vistas to the north and northeast of the Downtown area as do the Santa Monica/Hollywood Hills to the northwest.

Some roadways are designated within regulatory plans as “scenic highways” when they are characterized by, and/or have views of natural vistas, or which traverse an urban area which contains cultural, historical, or aesthetic values.¹¹ The Downtown area does not contain nor lie adjacent to state or local scenic highways. The nearest scenic highways are Adams Boulevard from Figueroa Street to Crenshaw Boulevard; and Stadium Way adjacent to Dodger Stadium from between the I-5 and I-110 Freeways.¹²

¹⁰ City of Los Angeles, CEQA Thresholds Guide, page A.2-1.

¹¹ City of Los Angeles, CEQA Thresholds Guide, page A.2-6.

¹² Los Angeles Department of City Planning. Mobility Plan 2035, an Element of the General Plan, 2016, pages 170 – 172. <https://planning.lacity.org/documents/policy/mobilityplnmemo.pdf>, accessed June 14, 2018.

The Downtown area is characterized by a dense, urban environment with a large number of mid-and-high rise buildings and a relatively flat topography. As such, views from the street level are blocked by buildings and are limited to the street corridors; no long range vista views of the San Gabriel mountain range to the north, Griffith Park and Dodger Stadium to the northwest or broad scenic views of the surrounding cityscapes or other horizon features are available. However, there is a large rise in the terrain in the vicinity of the Downtown Los Angeles Financial District (Financial District), located north of W. 5th Street and west of S. Hill Street, which increases the visual prominence of the high-rise buildings in the Financial District. As a result, the north-facing views through the street corridors in the Project Site vicinity include more focused views of some of the Financial District's distinctive high-rise buildings, which are components of the urban skyline, and provide visual interest.

In the Project Site area, W. 11th Street is a one-way westbound street, with views of the 54-story Marriott Ritz-Carlton tower at LA LIVE through the street corridor. S. Olive street is a one-way northbound street, with views of high-rise buildings in the Financial District along the street corridor. As such, there are focused views of buildings of interest, but no visually accessible scenic vistas. Due to their above ground elevations in some areas, the I-110 Freeway and I-10 Freeway located to the west and south, respectively, of the Project Site provide for some long-range scenic vista views across the Project Site's vicinity, including existing high-rise buildings and high-rise buildings under construction. Existing views across the Project Site are compared to simulated future views (with the Project) in Figures IV.A-4 through IV.A-13, under Subsection 3.d, *Analysis of Project Impacts*, below.

(2) Scenic Resources

The CEQA Guidelines Appendix G, Item I.b, cites examples of scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. These are visual features that can add to the valued aesthetic character of an area. The L.A. CEQA Thresholds Guide, Section A.1, *Aesthetics*, addresses Appendix G, Item I.b and adds to its illustrative list of scenic features a number of urban features that also contribute to the valued aesthetic character or image of an area. These include public plazas, art or gardens; consistent design elements along a street, pedestrian amenities, and landscaped medians or park areas.¹³

Both the Project Site vicinity and the Project Site are highly urbanized and contain no natural scenic resources. The Project Site is entirely developed to the sidewalk edge with no on-site landscaping. However, five street trees are located street-side along the edge of Olive Street; and three street trees are located along 11th Street.

The Project Site is currently occupied by five single-story commercial buildings and a paved parking lot. As discussed in Section IV.C, *Cultural Resources*, of this Draft EIR,

¹³ City of Los Angeles, CEQA Thresholds Guide, page A.1-1.

the on-site buildings are not historically significant, not architecturally distinctive, and are not considered valued scenic resources.

The area surrounding the Project Site is developed with buildings or paved parking lots. Other than street trees, no natural features are located within adjacent or other nearby properties that would be visible from the public street. A number of small parks and building plazas in the vicinity offer visual relief from the massing of buildings and add visual articulation, landscaping and architectural detailing that contribute to the aesthetic character of the area.

Other scenic resources in the area include historic buildings that add to the visual quality of the larger Project vicinity. Historical resources not only have value for creating interest and informing us of our cultural background, but also because their architecture and meaning often contribute to the visual character of an area. Section IV.C, *Cultural Resources*, of this Draft EIR, identifies six buildings within a quarter-mile radius of the Project Site that are designated as historic resources. These include the Federal Reserve Bank of San Francisco, Los Angeles Branch at 409 W. Olympic Boulevard, the AT&T Tower at 1150 S. Olive Street, the Mayan Theatre at 1038 S. Hill Street, the Belasco Theater at 1046 S. Hill Street, the Joseph Basch Company Building at 1031 S. Hill Street, and the White Log Coffee Shop at 1061 S. Hill Street. Key visual characteristics of these buildings are discussed further in Section IV.C, *Cultural Resources*, and in the impacts analysis below.

(3) Scenic Quality

(a) Surrounding Community

The Project Site is located in the City of Los Angeles' South Park neighborhood, which is a highly dense urban environment characterized by many tall structures housing multi-family dwellings, mixed-uses and commercial tenants. Existing and new high-rise construction in the South Park neighborhood, described further in Subsection 3.e, *Cumulative Impacts*, below, indicates that high-rise development is no longer limited to the Financial District, but is shifting to other areas of the City and expanding the City's high-rise profile.

The Los Angeles Sports and Entertainment District, which incorporates entertainment, hotel, and commercial uses, such as LA LIVE, the Los Angeles Convention Center (LACC), Staples Arena, hotels and mixed use development, adjoins the west edge of South Park, approximately 0.25 miles from the Project Site. As a regional destination, LA LIVE, Staples Center Arena, and the LACC exhibit a high daytime and nighttime level of activity. A dominant visual element in the Los Angeles Sports and Entertainment District is large-scale signage, which gives the development an animated, high-tech character. Other elements, including a large number of pedestrian-scaled elements such as outdoor seating, canopies, street lights and façade articulation at street level, create a pedestrian focus in the District.

Grand Hope Park, located on Hope Street between W. 9th Street and W. Olympic Boulevard, two blocks to the north of the Project Site, is a scenic focal view open space feature in the Project Site's vicinity. The 2.5-acre park provides a visual respite in the center of the City, as well as a visual link between South Park and the Financial Center to the north.

In the Project Site's vicinity, new residential development is juxtaposed with older office or apartment buildings. Street lighting is provided in parkways along the street edges and no overhead utility lines are present. No public street furniture is provided, however newer buildings have architecturally defined the pedestrian level, in some cases with widened sidewalks, and a few outdoor café tables. Buildings directly adjacent to the Project Site include the recently constructed 20-story, mixed-use Ten50 building, which includes an 18-story residential tower over a seven-story parking Podium; street-level commercial uses are located along the street front, primarily at the corner of S. Grand Avenue and W. 11th Street. The recently constructed seven-story Oakwood Olympic & Olive apartment building is located directly to the north of the Project Site at 1001 S. Olive Street. The MyFigueroa Streetscape Project, which extends along W. 11th Street adjacent to the Project Site, has narrowed the roadway to a single lane that would ultimately accommodate both private vehicles and streetcars as part of the Downtown LA Streetcar proposal. The sidewalks along the north side of W. 11th Street have been widened to provide a more generous pedestrian realm with planting and seating. On-street parking provided on the south side of the street is protected with curb extensions at intersections. A mature evergreen tree at the corner of S. Grand Avenue and 11th Street and two recently planted street trees of the same evergreen species are located along the S. Grand Avenue sidewalk. The existing street trees are consistent with species of existing, mature street trees along the east side of S. Grand Avenue.

Surface parking lots are located across W. 11th Street from the Project Site to the south and the 32-story AT&T tower is located on the east side of S. Olive Street across open parking lots from the Project Site.

(b) Project Site

The Project Site is currently occupied by five single-story commercial buildings. The buildings include simple rectangular massing, flat or gabled roofs, a mix of cladding faux tile, stucco, or aluminum siding. The buildings are set at the back side of the public sidewalk along Olive Street and 11th Street, with four mature, and one newly planted street trees along the Olive Street frontage; and three recently planted MyFig trees along the 11th Street frontage. The appearances of these buildings as viewed from the adjacent streets are depicted in **Figure IV.A-1, Existing Views of Project Site from S. Olive Street**, and **Figure IV.A-2, Existing Views of the Project Site from W. 11th Street**.



CPCR405.EP

SOURCE: ESA, 2018

1045 Olive Project

Figure IV.A-1
Existing View of the Project Site from S. Olive Street



Figure IV.A-2
Existing View of the Project Site from W. 11th Street

Figure IV.A-1 depicts the Project's Olive Street frontage, the most notable feature of which is parapet signage for the former rental office of the "Ten50" building, which is now completed; and located immediately to the west of the Project Site, west of the alley. The metal clad parapet features a yellow and gray geometric design advertising the new Ten50 residential high-rise building, located off-site at 1050 Grand Avenue. Windows are aluminum framed and entirely covered by security gates. Moving north along S. Olive Street, the adjacent building is a concrete structure with covered and gated windows. No entrances are visible or available to S. Olive Street. North of that building, the structure depicts a "Design and Display Systems" Building; rusted metal siding; a gated, aluminum framed display window and metal garage door entrances.

As shown in Figure IV.A-2, the Ten50 building signage wraps around the Project Site to the W. 11th Street parapet, extending west to the alley. Although the signage adds a modicum of color, the street wall between the intersection and the alley is a solid expanse with one gated window at the intersection and a solid (no windows) single door in the west sector of the frontage. The view of the alley shows the concrete alley, which is mostly filled by a delivery or waste collection truck and a fork lift vehicle. The yellow backdrop is the south wall of the Oakwood Olympic & Olive apartments located directly to the north of the Project Site. The concrete barriers associated with previous construction activities for the MyFigueroa Streetscape project are prominently visible. As with the S. Olive Street frontage, the building front includes gated windows.

(c) *Light and Glare*

Light and glare conditions are consistent with a highly urbanized area, with a high level of ambient light emitted by street lights, motor vehicles, and light spillage from windows of buildings surrounding the Project Site. Lighting associated with commercial uses along S. Olive Street and W. 11th Street is generally subdued, with smaller illuminated signs. Minimal light currently emanates from the Project Site, from the interiors of the existing retail and light manufacturing uses. The Project Site area and adjacent streets are not characterized by free-standing billboards, building-top, or tall-wall billboards.

Daytime glare is generally associated with reflected sunlight from buildings with reflective surfaces, such as glass, shiny surfaces, metal, or other reflective materials. The existing buildings on the Project Site are constructed with a mix of cladding, faux tile, stucco, and/or corrugated aluminum siding, which is not highly reflective.

3. Project Impacts

a) Thresholds of Significance

As described above, pursuant to SB 743 and ZI No. 2452, the Project would have no impacts on visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City's L.A. CEQA Thresholds Guide. In conducting the analysis below, which is provided for informational purposes only, the following analysis addresses the questions raised in Appendix G of the State

CEQA Guidelines, taking into account the factors below from the L.A. CEQA Thresholds Guide, where applicable and relevant to assist in analyzing the Appendix G questions.

The State CEQA Guidelines Appendix G otherwise state that a project would have a significant impact related to aesthetics based upon whether it would:

- a) Have a substantial adverse effect on a scenic vista; or**
- b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; or**
- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or**
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate aesthetics:

(a) Aesthetics

- The amount or relative proportion of existing features or elements that substantially contribute to the valued visual character or image of a neighborhood, community, or localized area, which would be removed, altered, or demolished;
- The amount of natural open space to be graded or developed;
- The degree to which proposed structures in natural open space areas would be effectively integrated into the aesthetics of the site, through appropriate design, etc.;
- The degree of contrast between proposed features and existing features that represent the area's valued aesthetic image;
- The degree to which a proposed zone change would result in buildings that would detract from the existing style or image of the area due to density, height, bulk, setbacks, signage, or other physical elements;
- The degree to which the project would contribute to the area's aesthetic value; and
- Applicable guidelines and regulations.

(b) Obstruction of Views

- The nature and quality of recognized or valued views (such as natural topography, settings, man-made or natural features of visual interest, and resources such as mountains or the ocean);
- Whether the project affects views from a designated scenic highway, corridor, or parkway;

- The extent of obstruction (e.g., total blockage, partial interruption, or minor diminishment); and
- The extent to which the project affects recognized views available from a length of a public roadway, bike path, or trail, as opposed to a single, fixed vantage point.

(c) *Shading*

- If shadow-sensitive uses would be shaded by project-related structures for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October).

(d) *Nighttime Illumination*

- The change in ambient illumination levels as a result of project sources; and
- The extent to which project lighting would spill off the project site and affect adjacent light-sensitive areas.

b) Methodology

(1) Scenic Vistas

The analysis of impacts regarding scenic vistas is addressed through the preparation of a views analysis pursuant to the procedures discussed in section A.2, *Obstruction of Views*, in the L.A. CEQA Thresholds Guide. As described therein, the term “views” generally refers to visual access to, or the visibility of, a particular sight from a given vantage point or corridor. The City recognizes the value of preserving sightlines (view access) to designated scenic resources or subjects of visual interest from public vantage points. The City considers such views “valued views” or “recognized views.” The subjects of valued or recognized views take into account both panoramic vistas and focal views. “Panoramic” views are considered vistas and provide visual access to a large geographic area, for which the field of view can be wide and extend into the distance. Panoramic vistas are usually provided from vantage points that look out over urban or natural areas and that provide a geographic orientation that is not commonly available. Examples of panoramic views and vistas include views of an urban skyline, valley or basin, mountain range, or other scenic setting. The City also takes into account focal views of particular objects, particularly in urban, built areas. Focal views include scenes, settings, or features of visual interest.

The analysis of view effects evaluates the degree to which a project may interrupt or block existing sightlines to a scenic resource, from public vantage points. The intent of the evaluation is to determine if valued public views of valued scenic resources exist in the Project Site vicinity and whether such views would be blocked or diminished as a result of Project development. The analysis of view effects is based in part on the evaluation of

view simulations that place architectural renderings of the Project into the existing setting as seen from representative public viewing locations within the vicinity of the Project site.

A viewing location must include views of scenic resources that are available to the public. Under the L.A. CEQA Thresholds Guide, an office building or private residence would not be considered a viewing location since views of broad horizons, aesthetic structures, and other scenic resources would not be available to the public. Obstruction of a few private views in a project's immediate vicinity is not generally regarded as a significant environmental impact.

(2) Scenic Resources

The evaluation of scenic resources pertains to the identification of scenic resources, such as panoramic vistas, trees, rock outcroppings and historic buildings. Scenic resources may also consist of unique or prominent natural or man-made attributes or several small features that, when viewed together, create a whole that is visually interesting or appealing.

The evaluation identifies potential direct and/or indirect impacts of the Project on scenic resources within a project site or its vicinity. Direct impacts include alteration of the resource due to Project implementation and indirect impacts pertain to changes in the environmental setting that reduce the aesthetic value of the resource as seen from public locations.

The evaluation is based on an identification of the absence and/or presence of a resource within an area subject to development/alteration, and changes to the appearance of a scenic resource caused by Project changes to the environmental setting. Information is presented in the visual simulations described above that place architectural renderings of the Project into the existing setting.

(3) Regulations Regarding Scenic Quality

As described in the Setting subsection above, the Downtown area is a heavily urbanized area whose "scenic views" are shaped by nearby pedestrian and traffic street corridors and skyline views from more distant and higher elevation locations. The scenic quality of the area is shaped by the aesthetic character and massing of its buildings, and its pedestrian character interspersed with a number of urban features that contribute to the valued aesthetic character or image that contribute to the scenic quality of the Downtown area, including public plazas, art or gardens; consistent design elements along a street, pedestrian amenities, and landscaped medians or park areas.

This analysis compares the massing, aesthetic and design characteristics of the Project to the goals, policies, objectives, design standard and regulations that guide development in a manner that effects the scenic quality of the Project setting. The following plans and regulations that shape the scenic quality of the area are addressed: (1) The General Plan Framework; (2) the Community Plan (inclusive of Chapter V, *Urban Design* and the

Downtown Design Guide, as implemented through the LAMC), and (3) the MyFigueroa Streetscape Project.

The analyses are based on the preparation of two tables that list policies, objectives, design standards and design guidelines cited in the applicable plans and regulations, and then provide a side-by-side comparison of the Project characteristics that pertain to those provisions. Aesthetics Table 1, *Comparison of Project Characteristics to Applicable Policies of the General Plan Framework*, and Aesthetics Table 2, *Comparison of Project Characteristics to Applicable Standards/Guidelines of the Downtown Design Guide*, are provided in Appendix B, *Aesthetics Tables*, of this Draft EIR. The comparison identifies the ways in which the Project would conform with and/or would conflict with the implementation of the regulatory requirements and guidelines.

(4) Light and Glare

The analysis of light and glare describes the existing ambient conditions on the Project Site and in the Project Site vicinity. The analysis describes the Project's proposed light and glare sources, and the extent to which Project lighting, including illuminated signage, would spill from the Project Site onto light-sensitive areas. The analysis also describes the direction in which the light would be focused, and considers the potential for sunlight to reflect off building surfaces (glare) and the extent to which such glare would interfere with the operation of motor vehicles or other activities or adversely affect the character of an area.

c) Project Characteristics

The Project includes widened sidewalks, activated building frontages that support pedestrian activity, and landscaping that is consistent with the Downtown Design Guide and MyFigueroa landscape palettes. The Project also includes within its design the screening of utilities and loading areas. Further, low reflectivity glass and other building materials would be used in exterior façades in order to minimize reflective glare. In addition to these Project characteristics, the following Project Design Features would be implemented:

AES-PDF-1: Construction Fencing: Construction Fencing: The Project's security fencing along the W. 11th Street, S. Olive Street, and the mid-block alley perimeters of the Project will be designed to screen views to the Project Site's ground levels during construction. The fencing shall have a minimum height of 8 feet; and the Applicant shall ensure through appropriate postings and regular visual inspections that no unauthorized materials are posted on temporary construction barriers or temporary pedestrian walkways, and that such temporary barriers and walkways are maintained in a reasonable manner throughout the construction period.

AES-PDF-2: Parking Shielding: Podium parking will be shielded from adjacent areas with minimum 36-inch high baffling panels behind architectural screen meshing for aesthetic character as well as for light and sound attenuation.

d) Analysis of Project Impacts

Threshold a) *Would the Project have a substantial adverse effect on a scenic vista?* Pursuant to SB 743, No Impact.

(1) Construction

The Project Site is situated in an area of relatively flat topography. The flat topography reduces viewing opportunities from the street level, since most views from public streets are blocked by intervening structures. The only public vantage points in the Project Site vicinity are adjacent street corridors and elevated freeways. The Project Site is currently developed and no scenic vistas are currently available from public streets adjacent to the Project Site.

The Project's construction site, including the Project's tower during various stages of development, construction fencing, roof-top cranes, and other construction-related equipment, would be visible from adjacent streets during much of the approximately four-year construction period. However, because no ground-level views of scenic vistas are available across the Project Site from adjacent streets, construction activities would not have an effect on a scenic vista.

(2) Operation

The Project is located in Downtown Los Angeles, which provides an urban skyline that is considered a component of a scenic vista for passers-by and viewers from locations throughout the Los Angeles basin and surrounding hillside areas. The San Gabriel Mountains also provide scenic vistas to the north and northeast of the Downtown area as do the Santa Monica/Hollywood Hills to the northwest.

The Project Site is currently developed and no scenic vistas are currently available from public streets adjacent to the Project Site. Further, neither the Project Site nor its general vicinity of the Project Site contain scenic resources that would establish a scenic corridor along the adjacent Project streets; and the Project Site is not located along a designated State-designated scenic highway.¹⁴

There are localized scenic resources in the larger Project vicinity that add to the quality of views along the Downtown urban corridors. Grand Hope Park to the north is a scenic resource in the Project vicinity, however it is located outside of the Project's immediate viewshed. Likewise, several historical buildings are located within a quarter-mile radius of the Project Site; with only two of these close enough to fall within the Project's viewshed: the White Log Coffee Shop and AT&T Center. Also, there is a large rise in terrain in the vicinity of the Financial District to the north, which increases the visual prominence of the high-rise buildings, revealing a visual component of the Downtown skyline.

¹⁴ Los Angeles Department of City Planning, Mobility Plan2035, an Element of the General Plan.

View simulations of the Project Site, with renderings of the Project placed into the current environmental setting, illustrate the presence and/or absence of scenic resources (panoramic scenic vistas and/or focal scenic resources along nearby corridors). The 10 locations from which view simulations are prepared are shown on **Figure IV.A-3, Key View Location Map**. The view simulations follow in **Figures IV.A-4 through IV.A-13**. The location of the historic resources in relationship to the Project Site is shown on **Figure IV.A-14, Historical Buildings within a Quarter Mile of the Project Site**. The following discussion describes the key characteristics of the views from the 10 locations and the Project impacts on scenic vistas and resources. The view simulations also illustrate the appearance of the Project in the context of its future setting and its effects on the aesthetic character of the area, for reference to other analyses within this Draft EIR.

A description of the views from each of the locations and the contribution of the Project to those views is provided as follows.

Figure IV.A-4, Key View 1: Existing and Simulated North-facing View of the Project from Main Street, illustrates the appearance of the Project Site as viewed from public views of the Project Site near the I-10 Freeway. As shown in Figure IV.A-4, the upper floors of taller high rise buildings near the Project Site, including the 32-story historic AT&T Center, are visible behind shorter intervening development in the foreground. As shown in the simulation, after development of the Project, views of the historic AT&T Center would remain similar to existing conditions; and the Project would blend in with, and add articulation to, with the overall Downtown skyline. Therefore, the Project would not have a substantial adverse effect on of this historical resource.

Figure IV.A-5, Key View 2: Existing and Simulated North-facing View of the Project from the AT&T Center on S. Olive Street, illustrates the appearance of the Project Site as viewed from S. Olive Street, south of the Project Site. As shown in the simulated view, due to its distance and orientation from the AT&T Center, the Project would not adversely affect views of this historical resource or the larger Downtown visual milieu.

Figure IV.A-6, Key View 3: Existing and Simulated West-facing View of the Project from W. 11th Street near S. Hill Street, illustrates the view of the Project from east of the Project Site. The White Log Coffee Shop is visible in the foreground. As shown in the simulation, the Project would not adversely affect views of the White Log Coffee Shop in the foreground.

Figure IV.A-7, Key View 4: Existing and Simulated South-facing View of the Project from S. Olive Street near W. Olympic Boulevard, illustrates the view of the Project from the north of the Project Site near W. Olympic Boulevard. As shown, no scenic vistas or views of scenic resources, such as historic buildings, are available from this view location. Therefore, the Project would not adversely affect a scenic vista.

Figure IV.A-8, Key View 5: Existing and Simulated South-facing View of the Project from Grand Hope Park, illustrates the view of the Project as viewed from the north of the Project Site. The AT&T Center, which is considered potentially eligible for listing as a historical

resource for its international modern-style architecture, is visible in the center background. No other background scenic resources or vistas are available as viewed from Grand-Hope Park.

As shown in the simulation, the Project would be visible in the forefront of the AT&T Center and a small portion of the AT&T Center would be partially obscured by the Project. However, the main full views of the AT&T Center, would remain. Therefore, the Project would have only minor impacts on views of scenic resources as viewed from Grand Hope Park, and would not have a significant impact on a scenic vista.

Figure IV.A-9, Key View 6: Existing and Simulated East-facing View of the Project from S. Grand Avenue near W. 11th Street, illustrates the view of the Project viewed from the west of the Project Site, along Grand Avenue. No scenic vistas, horizons, or scenic buildings are located in this view field and as shown, and therefore the Project would have no impact.

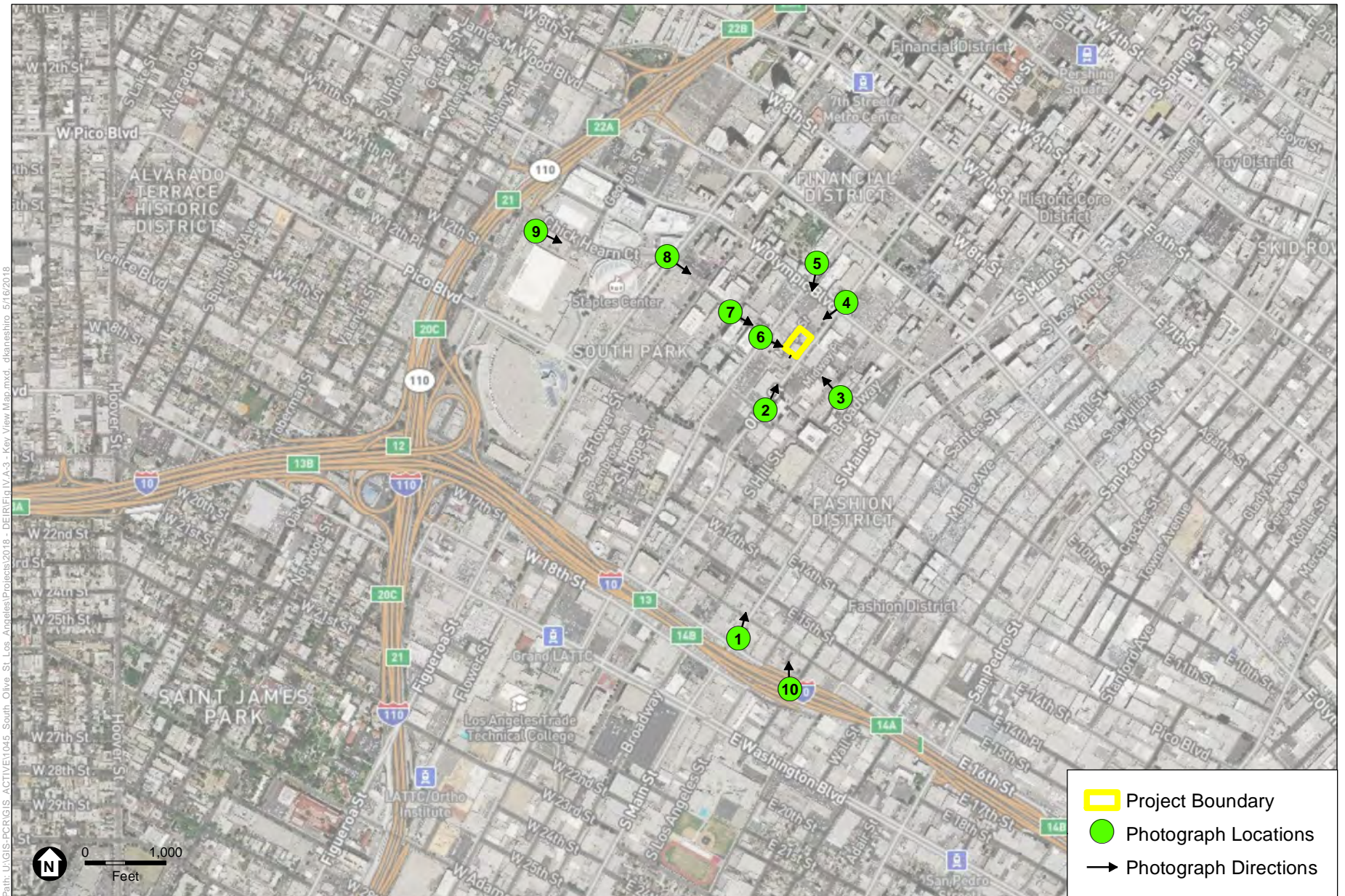
Figure IV.A-10, Key View 7: Existing and Simulated East-facing View toward Project from 11th Street near Hope Street, illustrates the view of the Project as viewed from the west of the Project Site. No scenic vistas, horizons, or historical buildings are located in the background of this view field. Therefore, the Project would not affect a scenic vista.

Figure IV.A-11, Key View 8: Existing and Simulated East-facing View of the Project from W. 11th Street near Figueroa Street, illustrates the view of the Project as viewed from the west of the Project Site. No scenic vistas, horizons, or historical buildings are located in this view field. Therefore, the Project would not adversely affect a scenic vista.

Figure IV.A-12, Key View 9: Existing and Simulated East-facing View of the Project from Chick Hearn Place, illustrates the view of the Project from the staircase of the Los Angeles Convention Center to the west of the Project Site, at the west side of Chick Hearn Place. No scenic vistas, horizons, or historic buildings are located in the background of this view field. The Project would blend in with, and add articulation to, the Downtown skyline. The Project would not adversely affect a scenic vista.

Figure IV.A-13, Key View 10: Existing and Simulated North-facing View of the Project from the Santa Monica Freeway, illustrates the view of the Project from approximately seven blocks to the south of the Project Site in the vicinity of the I-10 Freeway. The AT&T Center is visible to the left of the Project. As the Project would be to the north of the AT&T Center, it would not alter views of this historic building; and would blend in with, and add articulation to, the Downtown skyline.

As reflected in the 10 visual simulations above, the Project would have limited impacts on views of scenic resources including both panoramic views and localized, focal views. From more distant locations the Project would blend in with and add articulation to the Downtown skyline. Pursuant to SB 743, the Project would have no Impact regarding scenic vistas would occur.



SOURCE: Mapbox, 2018 and ESA, 2018

1045 Olive Project

Figure IV.A-3
Key View Map



Existing



Proposed

CPCR405.EP

SOURCE: ODA, 2018

1045 Olive Project

Figure IV.A-4
Key View 1: Existing and Simulated North-facing View
of the Project from Main Street



Existing



Proposed

CPCR05.1P

SOURCE: ODA, 2018

1045 Olive Project

Figure IV.A-5
Key View 2: Existing and Simulated North-facing View of the
Project from the AT&T Center Building on S. Olive Street



Existing



Proposed

Figure IV.A-6
Key View 3: Existing and Simulated West-facing View of the
Project from W. 11th Street near S. Hill Street



Existing



Proposed

CPCR05.1P

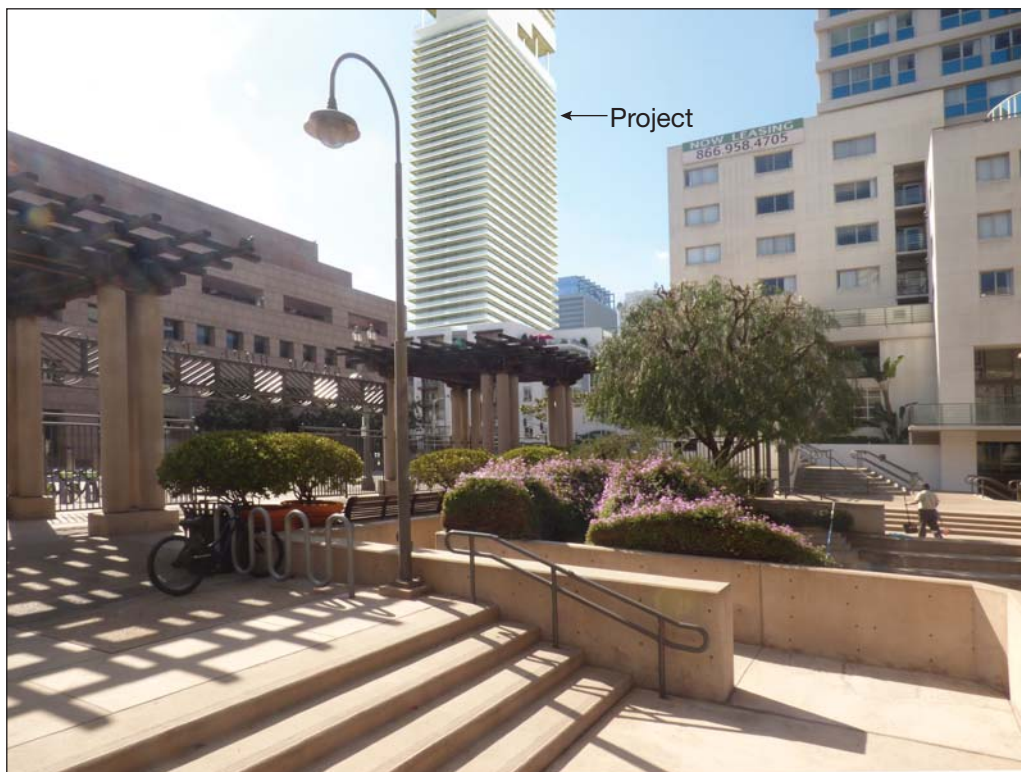
SOURCE: ODA, 2018

1045 Olive Project

Figure IV.A-7
Key View 4: Existing and Simulated South-facing View of the Project from S. Olive Street near Olympic Boulevard



Existing



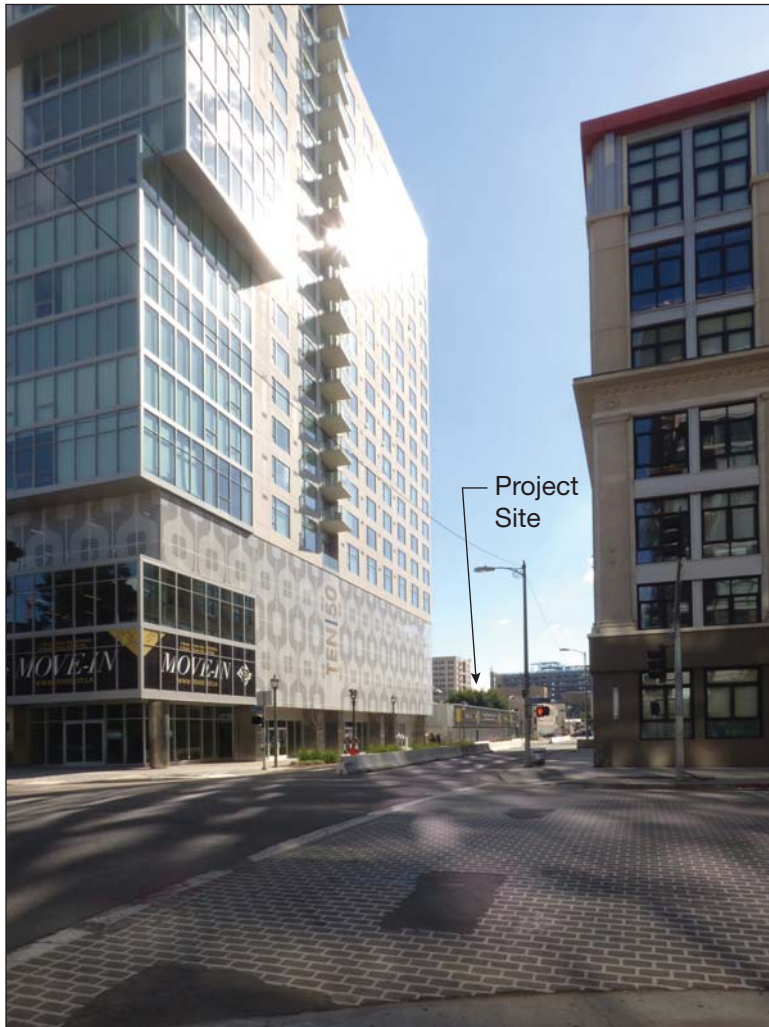
Proposed

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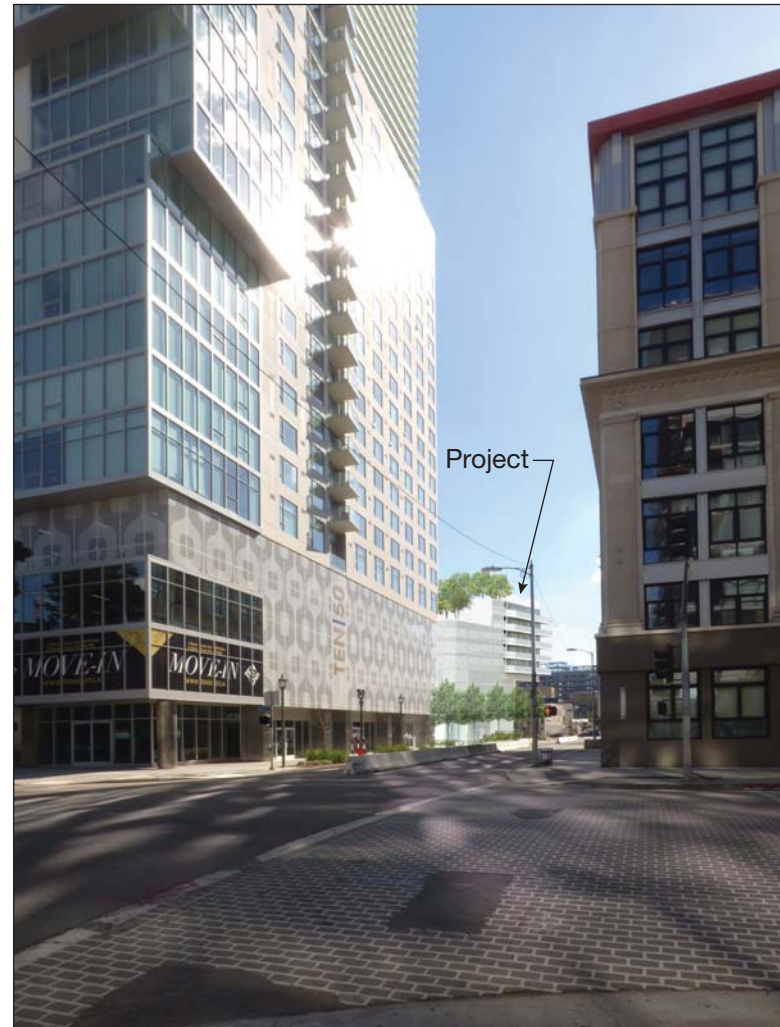
SOURCE: ODA, 2018

1045 Olive Project

Figure IV.A-8
Key View 5: Existing and Simulated South-facing View
of the Project from Grand Hope Park



Existing



Proposed

Figure IV.A-9
Key View 6: Existing and Simulated East-facing View of the Project from S. Grand Avenue near W. 11th Street



Existing



Proposed

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Figure IV.A-10
Key View 7: Existing and Simulated East-facing View
toward Project from 11th Street near Hope Street



Existing



Proposed

CPCR405.EP

SOURCE: ODA, 2018

1045 Olive Project

Figure IV.A-11
Key View 8: Existing and Simulated East-facing View of
the Project from W. 11th Street near Figueroa Street



Existing



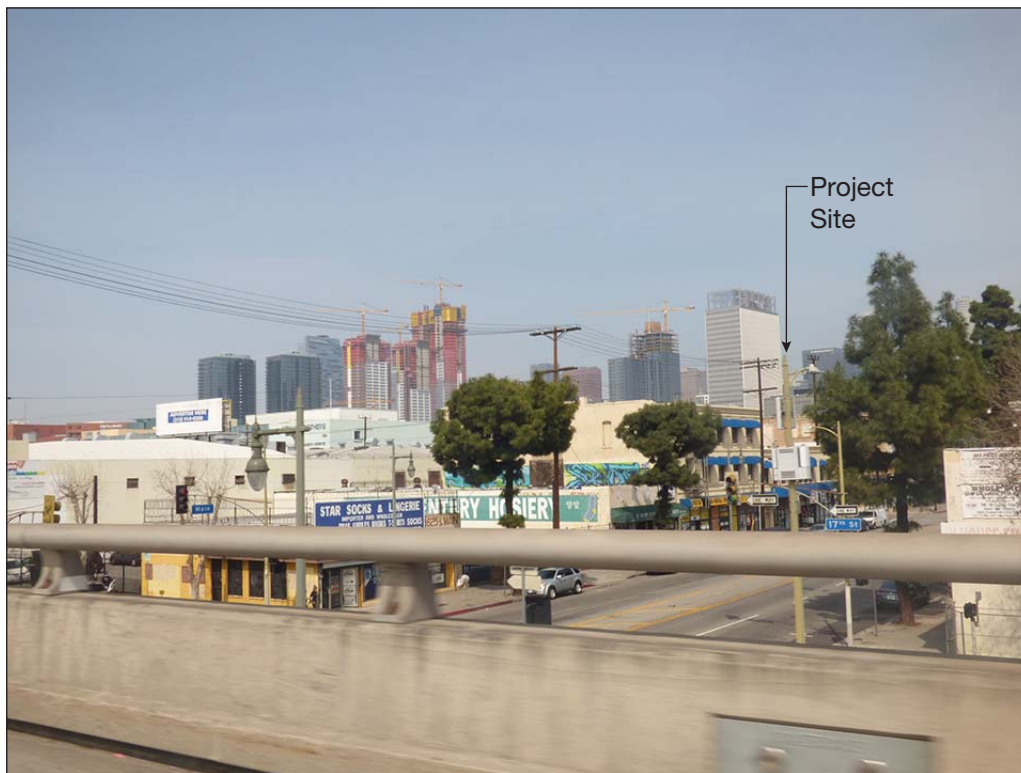
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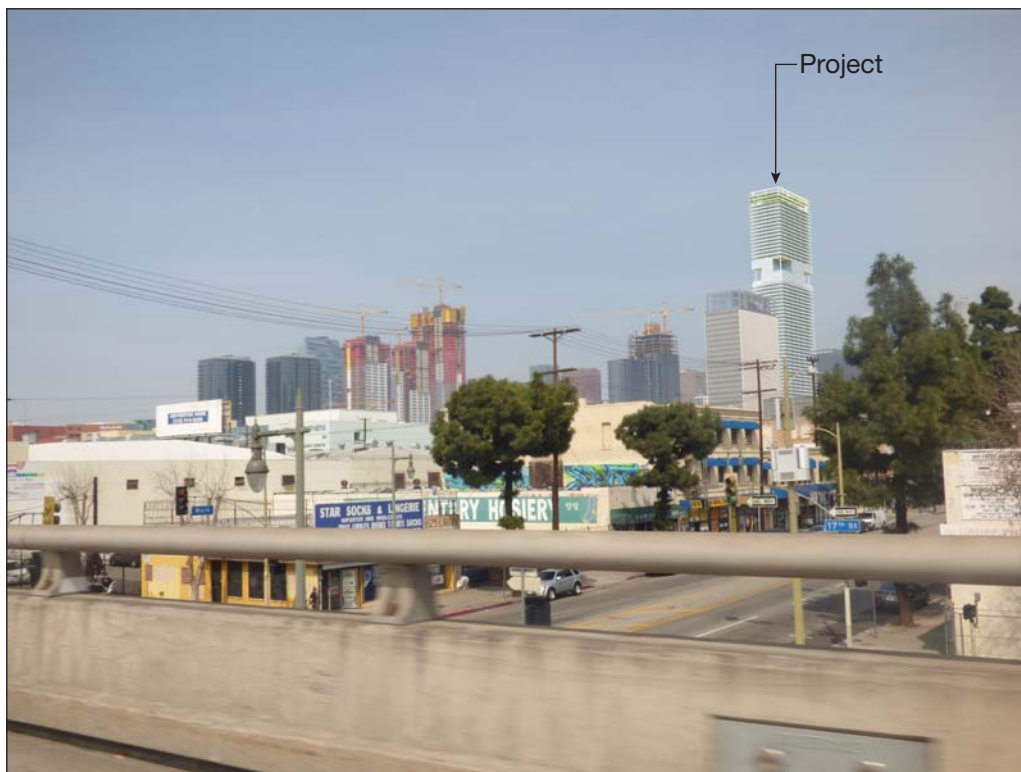
SOURCE: ODA, 2018

1045 Olive Project

Figure IV.A-12
Key View 9: Existing and Simulated East-facing View
of the Project from Chick Hearn Place



Existing



Proposed

CPCR405.EP

SOURCE: ODA, 2018

1045 Olive Project

Figure IV.A-13
Key View 10: Existing and Simulated North-facing
View of the Project from the Santa Monica Freeway



SOURCE: Google Earth, 2016.

1045 Olive Project

Figure IV.A-14
Historical Buildings within a Quarter Mile of the Project Site

Threshold b) *Would the Project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? Pursuant to SB 743, no impact would occur.*

(1) Construction and Operation

No scenic trees or scenic rock outcroppings are located on the Project Site or in the Project vicinity. The existing buildings on-site are not considered to be scenic resources. The Project is not located within a state-designated scenic highway. There would thus be no impact to any scenic resources within the Project Site. Further, the Project's contribution to the Downtown skyline, which is considered a scenic resource, would not be adverse. The Project would add articulation to the massing of the Downtown development. Buildings such as tall historical buildings would continue to be visible from multiple views of the Downtown skyline.

The nearby scenic resources in the Downtown area include such features as public plazas, art or gardens; and notable design elements along the streets, e.g., historical buildings. Given the heavily built nature of the Downtown area, these scenic resources are located within the development grid and would not be adversely affected by development within the Project Site.

Impacts of the Project on historical buildings as cultural resource is evaluated in Section IV.C, *Cultural Resources*, of this Draft EIR. As shown in that analysis, the Project would not have direct or indirect impacts on historical buildings as cultural resources; and impacts on cultural resources would be less than significant.

Therefore, the Project would not substantially damage scenic resources. Pursuant to SB 743, no impact on scenic resources would occur.

Threshold c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality? Pursuant to SB 743, no impact would occur.*

The Project is located within an urbanized area. Therefore, the question of whether the Project substantially degrades the existing visual character or quality of public views of the site and its surroundings does not apply. As such, the following analysis focuses on the Project's potential conflict or consistency with the following plans and regulations that have been developed to enhance the scenic quality of the Project vicinity: (1) The General Plan Framework; (2) the Community Plan (Chapter V, Urban Design and the Downtown Design Guide as implemented through the LAMC) and the MyFigueroa Streetscape Project.

(1) Construction

The City's plans, zoning and regulations regarding scenic quality address changes to the visual character of the environment that would occur on a long-term basis due to a development's massing, design and finishing characteristics. Therefore, the Project would not conflict with zoning and other regulations governing scenic quality due to the occurrence of construction activities at the Project Site. Notwithstanding, the Project's construction impacts on the scenic quality of the Downtown area has been reviewed and a Project Design Feature, AES-PDF-1, Construction Fencing, has been proposed to provide an 8-foot visual screening barrier around the Project Site during construction.

Construction activities associated with development of the Project would entail the demolition of the existing buildings, excavation for six levels of subterranean parking and construction of new buildings. The appearance of the Project Site would be altered with the staging of construction vehicles, storage of materials, and structural construction. The use of highly visible cranes would be required for the construction of the Project's nine-level Podium and 61-story tower. Construction activities would be primarily visible from W. 11th Street and S. Olive Street. However, taller construction equipment such as cranes and the upper portions of the Project buildings under construction would be visible from a greater radius of street networks. None of the construction components would conflict with zoning or other regulations relating to scenic quality.

(2) Operation

As described in the Setting subsection above, the Downtown area is a heavily urbanized area whose "scenic views" are shaped by nearby pedestrian and traffic street corridors and skyline views from more distant and higher elevation locations. The scenic quality of the area is shaped by the aesthetic character and massing of its buildings, and its pedestrian character interspersed with a number of urban features that contribute to the scenic quality of the Downtown area, including public plazas, art or gardens; consistent design elements along streets, pedestrian amenities, and landscaped medians or park areas.

The General Plan Framework; the Community Plan, inclusive of the Downtown Design Guide as implemented through the LAMC) and the MyFigueroa Streetscape Project provide a hierarchy of design standards and guidelines that are consistent with one-another; and which establish general Citywide principles for development that are then finer tuned and implemented at the local level, with more detailed, specific design standards.

(a) General Plan Framework

The General Plan Framework policies and objectives pertaining to scenic quality are provided primarily in Chapter 5, *Urban Form and Neighborhood Design*. They encourage an urban form that is based on the development of centers and nodes along corridors that are served by transit and are already functioning as centers for the surrounding neighborhoods. The policies and objectives encourage the implementation of high quality

development inclusive of open space/landscaping and art features; and they encourage implementation of a well-established/delineated pedestrian network with walker-friendly, attractive pedestrian facilities. By encouraging the proposed urban form, the General Plan Framework establishes a development pattern that supports the character of the Los Angeles skyline with its varied communities and visual punctuations; and also establishes well defined areas to which design standards can be applied that provide continuity and coherence in the visual appearance of local development areas. Cross-over related guidelines regarding the provision of open spaces that contribute to the design appearance of the City and the inclusion of pedestrian infrastructure, are also included Chapter 6, *Open Space and Conservation*, and Chapter 8, *Transportation* of the General Plan Framework.

Key policies and objectives pertaining to the design of the Project are listed in Aesthetics Table 1, *Comparison of Project Characteristics to Applicable Policies of the General Plan Framework*, in Appendix B, *Aesthetics Tables*, of this Draft EIR. As indicated in Table 1, the Project would be consistent with the General Plan Framework and would not conflict with its implementation. For reasons explained therein, and reasons more fully expanded upon in the discussion of the Downtown Design Guide below, the Project does contribute to an identified center within the City's urban form that is conducive to a common set of design principles, and accordingly does not conflict with the General Plan Framework Element policies and objectives regarding scenic quality.

(b) *Community Plan*

Chapter V, *Urban Design*, of the Community Plan provides an overall concept for design within the Community Plan Area. Chapter V, *Urban Design*, carries over the policies and objectives from the General Plan Framework. The introductory material in this Chapter provides overall design concepts to be included in the Downtown Design Guide and incorporates by reference that document into the Community Plan. Based on the analysis above regarding the General Plan Framework and the analysis below regarding the Downtown Design Guide, the Project does not conflict with Community Plan regulations relating to scenic quality.

(c) *Downtown Design Guide*

A detailed listing of the standards and guidelines that are applicable to the Project along with a discussion of how the Project characteristics align with those standards and guidelines is provided Aesthetics Table 2, *Comparison of Project Characteristics to Applicable Standards/Guidelines of the Downtown Design Guide*, in Appendix B, *Aesthetics Tables*, of this Draft EIR. The Downtown Design Guide is divided into 12 Sections, some providing general information regarding the document's intent, organization and implementation procedures; and others providing very specific design standards describing massing and spacing of buildings, materials and aesthetic treatments so as to enhance the scenic quality of the Downtown area and to avoid adverse impacts to that scenic quality. As indicated in Aesthetics Table 2, the Project would be consistent with all of the standards and guidelines of the Downtown Design

Guide related to scenic quality and the Project would not conflict with the implementation of those provisions.

(d) *MyFigueroa Streetscape Project*

While the MyFigueroa Streetscape Project is sponsored by LADOT, and is in large part a transportation project to serve the multi-modal transit needs, it also includes a visual component to enhance the scenic quality of the Downtown area. The four-mile long streetscape project includes an extension along W. 11th Street, between Figueroa Street and Broadway Street, i.e. running adjacent to the Project Site. The proposed MyFigueroa Streetscape Project visual improvements include the provision of new street trees, landscaped area and street art, with an intent of turning of 11th Street into what it describes as a “scenic, green linear park.”¹⁵

The Project supports the transit objectives of the MyFigueroa Streetscape Project (including its bicycle and pedestrian supportive features) as well as its visual objectives. As described above under the discussion of the Downtown Design Guide, the Project includes widened sidewalks, activated building frontages that support pedestrian activity, landscaping that is consistent with the MyFigueroa landscape palette, and architectural treatments that contribute to the visual continuity of development along 11th Street. For these reasons the Project support and would not conflict with the 11th Street scenic quality anticipated in the MyFigueroa Streetscape Project.

(e) *LAMC*

As discussed above, the Downtown Design Guide, which provides the design standards and guidelines for the Downtown area is incorporated into Subsection 12.22-A.30 of the LAMC. Therefore, for the reasons stated above regarding the Project’s consistency with the Downtown Design Guide, the Project would be consistent with the City’s regulatory mechanisms for implementing its standards for scenic quality and would not conflict with Subsection 12.22-A.30.

Further, the Project’s overall massing and height would be consistent with the general zoning regulations that are applicable to the Project Site. As such, the Project’s massing would contribute to the scenic character and appearance of the Downtown skyline and building massing in a manner that is consistent with the LAMC. The Project’s implementation per the City’s zoning regulations regarding building height and floor area is discussed further in Section IV.I, *Land Use*, of this Draft EIR.

(f) *Conclusion*

As described above, the Project’s characteristic would be consistent with, and would not conflict with the implementation of, City’s zoning or other regulations regarding scenic quality. Pursuant to SB 743, no impact on scenic resources would occur.

¹⁵ Myfigueroa Blog Site. <https://myfigueroa.com/blog>. Accessed May 23, 2019.

Threshold d) *Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?* Pursuant to SB 743, no impact would occur.

(1) Construction

Project construction lighting would increase the current, low level of existing nighttime lighting at the Project Site. However, the Project Site area is an urbanized setting characterized by a high ambient nighttime light levels, including street lights, lights from other buildings, and some illuminated business signs. Construction activities are anticipated to take place during daylight hours, and construction-related nighttime lighting would be used at the construction site only for safety and security purposes. Safety lighting would be provided on construction cranes. Construction lighting would be shielded, directed downward, and as required City policies and regulations, in such a manner as to preclude light pollution or light trespass that would cause more than two foot-candles of lighting intensity, or generate direct glare onto exterior glazed windows or glass doors of, any existing or anticipated adjacent residential uses. In addition, pursuant to AES-PDF-1 an 8-foot tall opaque security fence would be provided around the construction site. The wall would block ground-level views of the construction site and reduce spillover of security lighting onto adjacent properties. Finally, Project construction lighting would be intermittent during certain stages of the approximately four-year construction period. For these reasons, Project construction lighting would not adversely affect day or nighttime views in the area.

(2) Operation

(a) *Lighting*

Ambient lighting characteristics in the Project vicinity are the result of lighting from the large amount of development within the Downtown area. Lighting along the Figueroa corridor, approximately 0.25 miles from the Project Site is very intensive inclusive of the Los Angeles Sports and Entertainment District, e.g., LA LIVE and the Los Angeles Convention Center, including large-scale lighting, wall signs and digital display signs. The more immediate area surrounding the Project Site is highly urbanized and includes numerous commercial uses, offices, surface parking lots, and mixed-use development that generate lighting; as well as street lights motor vehicle traffic that further contribute to the lighting in the area. Lighting from these land uses and light sources contribute to high ambient nighttime light levels in the Project Site area. Exterior sources of lighting in the more immediate Project area include typical commercial signage, building identification signage and architectural highlighting. Interior light spill-over from windows of nearby commercial and residential uses, particularly pedestrian level retail uses, also contribute to the ambient nighttime levels.

The Project would introduce a higher level of night lighting to the Project Site than occurs under the existing conditions. Lighting would include pedestrian lighting, landscaping and architectural lighting, illuminated signage, decorative lighting within the Plaza, lighting

emanating from interior residential and commercial uses, and security lighting. Such lighting is not a high generator of lighting as compared to uses in the more active parts of the Downtown area and is similar to lighting emanating from other buildings in the Project vicinity.

Project lighting would be visible from nearby light-sensitive land uses, including the residential buildings to the west and north; however, nighttime lighting from street lights, vehicle lights, other mixed-use buildings and illuminated signs already occur in the area along S. Grand Avenue, W. Olympic Boulevard, and W. 11th Street.

As described earlier, the existing surrounding area is highly urban and exhibits high ambient nighttime illumination levels due to the densely developed nature of the area, active street corridors that include numerous vehicles, lighting from surface parking lots, high degree of signage in the area.

Given the Project's use of lighting for common residential and commercial uses, the Project would not create lighting contrasting with other development in the area or notably altering ambient light levels within the vicinity. Project lighting would be in character with other existing development in the area.

Regarding direct lighting, the Project would contain no flood lighting, digital billboards, or other strong point source lighting. Project lighting would be designed in conformance with City policies and regulations, most notably LAMC Section 93.0117(b), which limits the maximum amount of illuminance from an exterior light source at the property line of the nearest residentially-zoned property, and LAMC Section 14.4.4.E, which limits the maximum contribution from illuminated signage at a residential property. Further, as shown in Aesthetics Table 2 in Appendix B, *Aesthetics Tables*, of this Draft EIR the Project's exterior lighting would be consistent with Section 8, Architectural Detail, of the Downtown Design Guide, which provides lighting standards to avoid adverse impacts and to create an attractive lighting motif for the Downtown area. Consistent with Downtown Design Guide Section 8, exterior lighting would be shielded to reduce glare and eliminate light being cast into the night sky. Security lighting would be integrated into the overall architectural and landscape themes for the Project. Furthermore, vehicles headlights and security lighting within the 9-story Podium would be screened, pursuant to AES-PDF-2: Parking Shielding, as cited above, and would not be visible from surrounding areas. Accordingly, the Project's lighting would not adversely affect daytime or nighttime views.

(b) Glare

Daytime glare is most often associated with mid- to high-rise buildings with exterior façades comprised largely or entirely of highly reflective glass or other reflective materials from which the sun can reflect, particularly following sunrise and prior to sunset. The Project would develop a new 70-story residential tower visible from surrounding streets. The exterior façade of the Project would feature distinctive horizontal bands of windows and, as such, would avoid broad expanses of glass or flat, shiny building walls that would

produce glare. In addition, glass and other building materials used in exterior façades would be of low reflectivity in order to minimize glare.

With respect to nighttime glare, the Project is located in a highly developed, urban location with a high degree of ambient nighttime light. As described above, the Project would include no sources of bright lighting; and the exterior lighting provided would be shielded and directed on-site consistent with City regulatory provisions; and would not result in substantial glare at adjacent light-sensitive uses or alter the character of off-site areas. Accordingly, the Project would not create glare that would adversely affect daytime or nighttime views.

As noted above, this analysis has been presented for informational purposes. Pursuant to SB 743 and ZI 2452, the Project would result in no impact involving light and glare.

e) Cumulative Impacts

Chapter III, *General Description of Environmental Setting*, of this Draft EIR provides a list of 195 projects that are recently built, planned or are under construction in the Project's transportation study area, provided in Table III-1. Figure III-1, Related Projects Map, illustrates the locations of the related projects and their geographic extent. The majority of the related projects are clustered between the Harbor Freeway (I-110) and Main Street. For the purpose of evaluating aesthetics, related projects are projects close enough to the Project Site to share the same field of view or related projects that are located within several blocks of the Project Site or along the same streets in the vicinity of the Project Site, so that viewers along a street, bicycle lane, or sidewalk would experience the cumulative visual experience of the Project combined with related projects. As such, these near-by related projects are located within the same transit priority area as is the Project, and subject to the provisions of SB 743.

Thirty-one related projects are listed below that would be visible in the Financial District and South Park viewshed. Of these, five related projects would be located within the Financial District and the remainder (26) would be located within South Park:

- Related Project No. 3: Mixed-Use Project: 820 S. Olive Street, 522 residential units plus commercial space (49 stories)
- Related Project No. 6: 1120 S. Grand Avenue, 512 residential units plus commercial space (38 stories plus 100-foot roof spire)
- Related Project No. 18: 11th and Hill Project: 1111 S. Hill Street, 528 residential units plus commercial space (63 stories)
- Related Project No. 22: Park/Fifth Project: 427 W. 5th Street and 437 S. Hill Street, 660 residential units plus commercial space (24 stories) (Financial District)
- Related Project No. 23: Ninth & Flower Project: 830 S. Hope Street, 525 residential units plus commercial space (28 stories)

- Related Project No. 28: Ninth & Olive Project: 840/888 S. Olive Street, 303 residential units plus commercial space (29 stories)
- Related Project No. 32: 801 S. Olive Project: 801 S. Olive Street, 363 residential units plus commercial space (33 stories) (Financial District)
- Related Project No. 36: SB Omega: 601 S. Main Street, 452 residential units plus commercial space (38 stories)
- Related Project No. 39: 1133 Hope Project: 1133 S. Hope Street, 208 residential units plus commercial space (28 stories)
- Related Project No. 43: 1600 Figueroa Project: 1600 S. Figueroa Street, 336 residential units plus hotel (52 stories)
- Related Project No. 46: Metropolis Mixed-Use: 851 S. Francisco Street, 836 residential units plus hotel and commercial space (19, 38, 40, 58 stories)
- Related Project No. 50: LASED Entertainment District (includes Oceanwide, Circa, and JW Marriott): Figueroa at 11th Street, 1,264 residential units plus hotel and commercial space (35 (twin), 38, and 49 stories)
- Related Project No. 52: Wilshire Grand Project: 900-930 W. Wilshire Boulevard, 100 residential units, 899 hotel rooms plus commercial space (73 stories) (Financial District)
- Related Project No. 53: 1212 Flower Mixed-Use Project: 1212 S. Flower Street, 730 residential units plus commercial space (32 stories)
- Related Project No. 54: Olympic/Hill Project: 301 W. Olympic Boulevard, 300 residential units plus commercial space (x stories)
- Related Project No. 82: Hill Mixed-Use Project: 940 S. Hill Street, 232 residential units plus commercial space (20 stories)
- Related Project No. 93: Apex Phase 2: 700 W. 9th Street, 341 residential units plus commercial space (28 stories)
- Related Project No. 97: Alexan South Broadway: 850 S. Hill Street, 300 residential units plus commercial space (26 stories)
- Related Project No. 112: Luxe Hotel and Mixed-Use: 1020 S. Figueroa Street, 300 residential units plus hotel and commercial space (32, 34, and 38 stories)
- Related Project No. 114: Figueroa+Pico Hotel: N/E corner of Pico and S. Figueroa Street, 1,162 hotel rooms and commercial space (42 and 25 stories)
- Related Project No. 123: Mixed-Use Project: 945 W. 8th Street, 764 residential units plus commercial space (64 stories) (Financial District)
- Related Project No. 140: Figueroa Centre: 913 S. Figueroa Street, 200 residential units plus hotel and commercial space (66 stories)
- Related Project No. 141: Mixed-Use Project: 1323 S. Grand Avenue, 284 residential units plus hotel and commercial space (28 stories)

- Related Project No. 143: Mixed-Use Project: 1000 S. Hill Street, 498 residential units plus commercial space (48 stories)
- Related Project No. 145: Olive and Grand Mixed-Use Project: 845 S. Olive Street, 209 residential units plus commercial space (29 stories)
- Related Project No. 146: Olympia Mixed-Use Project: 1001 W. Olympic Boulevard, 1,367 residential units plus commercial space (43, 52, and 65 stories)
- Related Project No. 154: Eighth & Fig Project: 744 S. Figueroa Street, 438 residential units plus commercial space (43 stories) (Financial District)
- Related Project No. 158: Eighth, Grand & Hope Tower: 754 S. Hope Street, 409 residential units plus commercial space (39 stories) (Financial District)
- Related Project No. 164: 1300 Figueroa Hotel: 1300 S. Figueroa Street, 1,024 Hotel rooms (53 stories)
- Related Project No. 181: Olympic Tower Project: 815 W. Olympic Boulevard, 374 residential units plus hotel, conference center and commercial space (60 stories)
- Related Project No. 190: DTLA South Park Project, Mack Urban Site 2: 1120 S. Olive Street, 713 residential units plus commercial (60 stories)
- Related Project No. 191: DTLA South Park Project, Mack Urban Site 3, 1105 S. Olive Street, 537 residential units plus commercial (51 stories)

(1) Scenic Vistas

As discussed previously, the Project would not have an impact on scenic vistas. Due to the relatively flat topography and developed nature of the Project area, public views from street level locations are largely limited to short-range views of the immediately surrounding urban landscape (i.e., building façades, signage, roadway infrastructure, etc). Visual resources are thus generally only visible to adjacent land uses and/or along certain segments of street corridors.

Central City's South Park district is trending toward a greater high-rise profile, as demonstrated by the large number of high-rise related projects within the area. The City's high-rise profile and notable buildings are the area's primary scenic resource. The increased density of high-rise development in South Park would obscure some views of Downtown's notable high-rise buildings as viewed through some local street corridors. However, the Project in combination with related Projects are located primarily in the South Park area and would not interfere with skyline views of the Cityscape (such as the Financial District's high rise cluster); and would rather become a part of that Cityscape skyline with added variation and articulation.

The Project in combination with related projects such as Related Project No. 6, the 666-unit, 38-story Aven Project; Related Project No. 16, the adjacent 25-story, 151-unit Ten50 mixed use development; Related project No. 18, the 11th and Hill, 63 story Project, Related Project No. 60, the adjacent, 7-story, 225-unit Oakwood Apartments, Related

Project No. 190, the 60 story DTLA South Park project, Mack Urban Site 2, caddy corner to the project Site, and Related Project No. 191, the 51 story DTLA South Park Project, Mack Urban Site 3, across the street from the Project Site would create a cluster of taller buildings in the Project vicinity that would provide a variety of building heights and styles that would contribute to views of the cityscape as viewed from elevated areas to the north, such as the Hollywood Freeway (I-101) approach to the Downtown, Griffith Observatory, the Santa Monica Freeway approach to the Downtown and other public areas having broad views of the City's skyline. Primarily distant views of the City's skyline would not be blocked by the increased number of buildings within the South Park area.

(2) Scenic Resources

As discussed above, no scenic resources are located within or adjacent to the Project Site, and the Project Site is not located within a State Scenic Highway. Therefore, the Project would not have any direct adverse impacts on a scenic resource; and therefore, would not cumulatively contribute to the effects of related projects on scenic resources that might occur independently of the Project.

As also noted above, the Project's indirect impacts to scenic resources due to changes in their environmental setting is also limited. The Project would blend with the Downtown skyline along with other related projects as viewed from distant locations. The cumulative development would vary the articulation of the skyline but would not adversely alter its contribution to the scenic quality of the skyline.

The nearest focal scenic resources, are primarily distant from the Project Site, limited, and not within the Project's primary viewshed. Nevertheless, Related Project No. 190, the 60 story DTLA South Park project, Mack Urban Site 2, caddy corner to the Project Site, and Related Project No. 191, the 51 story DTLA South Park project, Mack Urban Site 3, across the street from the Project Site, Related Project No. 18, the 11th and Hill, 63 story project, and the Project would create a cluster of taller buildings in the Project vicinity that would be visible to the north of the AT&T Center. However, the northerly frontage is not the primary view of the AT&T Center and main full views of the AT&T Center would remain from the west, south, and east.¹⁶ Therefore, the related projects would only result in one view of this scenic resource being partially obstructed.

As shown in the *Phase I Cultural Resources Assessment Report*, Appendix D of this Draft EIR, the Project would not have indirect impacts on historical resources as it would not adversely obstruct historically or architecturally significant primary views to and from an adjacent resource that contributes to its eligibility as a historical resource, or be incompatible in scale, massing, materials or design with an adjacent historical resource such that its eligibility is substantially impaired.

Therefore, while there would be some obstruction of one non-primary frontage of the AT&T Center as a result of the related projects, the Project would not cumulatively

¹⁶ Phase I Cultural Resources Assessment Report, Appendix D of this Draft EIR.

contribute to indirect impacts to the setting in which scenic resources are located and can be appreciated. As shown above in Figure IV.A-4 (Key View 1 from Main Street) and Figure IV.A-8 (Key View 5 from Grand Hope Park), the Project would be far enough removed from the AT&T tower and White Log Coffee Shop, historical buildings that contribute to the scenic character of the Project vicinity, to not contribute with other related projects to alterations in the setting that would reduce the scenic value of these resources.

(3) Zoning and Regulations for Scenic Quality

A number of the related projects are located within the immediate vicinity of the Project. Nearby prominent mixed-use buildings that are currently under construction, completed or proposed and listed as related projects, are Related Project No. 6, the 666-unit, 38-story Aven Project; Related Project No. 16, the adjacent 25-story, 151-unit Ten50 mixed use development; Related Project No. 18, the 11th and Hill, 63 story project, Related Project No. 60, the adjacent, 7-story, 225-unit Oakwood Apartments, Related Project No. 190, the 60 story DTLA South Park project, Mack Urban Site 2, caddy corner to the Project Site, and Related Project No. 191, the 51 story DTLA South Park project, Mack Urban Site 3, across the street from the Project Site.

New buildings, like the Project, would also be required to comply with regulations governing scenic quality, inclusive of the General Plan Framework, Community Plan and Downtown Design Guide. Substantial compliance with the regulations and guidelines would result in high quality construction that would enhance the visual character and scenic quality of the area. To the extent that a related project may not be in strict compliance with every single guideline within the Downtown Design Guide, the Downtown Design Guide permits alternative approaches that achieve the overall objectives of the Downtown Design Guide as set forth and codified in LAMC Section 12.22-A.30.¹⁷ Any such alternative approach would be independent of the Project's impacts and would not result in any inconsistencies to which the Project would add a cumulative contribution.

(4) Light and Glare

Downtown Los Angeles is characterized by high levels of ambient night lighting emanating from high-rise buildings, the LACC, LA LIVE, Staples Center Arena and associated illuminated signage, active freeway traffic, street lights, building signs, on-street vehicle headlights, and street-level signage along primary streets. New related projects in South Park area are changing the area's ambient light conditions, in that many uses, such as those along Figueroa Street would contain bright signage programs oriented toward the street front. Commercial uses throughout the other neighborhoods undergoing high levels of growth would also contribute illuminated signage. As such, ambient light levels would increase throughout the South Park district. Architectural lighting at many of the buildings, security lighting, street level lighting from retail and restaurant signs, and light emanating from residential towers. Almost all of the related

¹⁷ City of Los Angeles Downtown Design Guide, June 2017, Page 1. <https://planning.lacity.org/Urbanization/DwntwnDesign/TableC.pdf>.

projects contain interior parking and, as such, would not generate glare from security lighting within surface parking lots.

The Project and related projects are in an urbanized area, with active street corridors, high degree of vehicle traffic and a large amount of signage that create a well-lit urban landscape. The infill development occurring within the area typically includes similar lighting that is appropriate to the respective uses. Such lighting would be in character with existing lighting levels in the area and would blend with, as opposed to contrast with, the already high ambient lighting levels in the area. Further, lighting impacts from the related projects would be limited due to City policies and regulations. LAMC Section 93.0117(b) limits the maximum amount of illuminance from an exterior light source at the property line of the nearest residentially-zoned property, and LAMC Section 14.4.4.E limits the maximum contribution from illuminated signage at a residential property. Section 8, Architectural Detail, of the Downtown Design Guide further limits lighting to support the aesthetic character of the area. The Project and cumulative projects would be required to ensure that light spill onto nearby sensitive receptors does not exceed acceptable levels as defined by the regulations.

To the extent an individual cumulative project might incorporate highly reflective materials and cause local glare effects, the Project would not contribute to a combined effect as Project materials are of a type that would not generate a meaningful amount of reflective glare.

(5) Summary of Cumulative Impacts

As described above, the Project in concert with the related projects would add to the overall form and density of the Downtown area. The development would add articulation and variation to the Downtown skyline as viewed from more distant locations. Scenic resources within the Downtown area are localized and are typically, visually appreciated from their immediate surroundings. The Project would not have direct or indirect impacts on focal scenic resources or vistas and therefore would not add a cumulatively considerable contribution to aesthetic impacts. Further, the Project, along with the related projects, would not conflict with regulatory requirements regarding scenic quality and lighting.

As noted above, this analysis has been presented for informational purposes. Pursuant to SB 743 and ZI 2452, the Project and related projects would result in no cumulative impact on aesthetics within the area surrounding the Project Site or the larger regional context.

f) Mitigation Measures

Pursuant to SB 743 and ZI No. 2452, there would be no impacts on views of scenic vistas, scenic resources, zoning and regulations for scenic quality, and light and glare. No mitigation measures are required.

g) Level of Significance After Mitigation

Not applicable, as no impacts would occur prior to mitigation.

IV.B. Air Quality

1. Introduction

This section evaluates the Project's potential air quality impacts, as well as its potential cumulative air quality impacts, generated by construction and operation of the Project. This section estimates the air pollutant emissions generated by Project construction and operation, and whether Project emissions would conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; result in a cumulatively considerable net increase of any criteria pollutant in non-attainment of federal or state ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people. This section relies on the information, data, assumptions, calculation worksheets, and model outputs in the *Air Quality Technical Appendix* prepared by ESA included in Appendix C of this Draft EIR, unless otherwise stated.

2. Environmental Setting

a) Air Quality Background

(1) Criteria Pollutants

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States Environmental Protection Agency (USEPA) and are subject to emissions control requirements adopted by federal, state and local regulatory agencies. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. A description of the health effects of these criteria air pollutants are provided below.

(a) Ozone (O_3)

Ozone (O_3) is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of sunlight under favorable meteorological conditions, such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. According to the U.S. EPA, ozone can cause the muscles in the airways to constrict potentially leading to

wheezing and shortness of breath.¹ Ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease.² Long-term exposure to ozone is linked to aggravation of asthma, and is likely to be one of many causes of asthma development and long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children.³ According to the California Air Resources Board (CARB), inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath.⁴ The USEPA states that people most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers.⁵ Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure.⁶ According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engaged in vigorous activities compared to adults.⁷ Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults and are less likely than adults to notice their own symptoms and avoid harmful exposures.⁸ Further research may be able to better distinguish between health effects in children and adults.⁹

(b) Volatile Organic Compounds (VOCs)

VOCs are organic chemical compounds of carbon and are not “criteria” pollutants themselves; however, they contribute with NO_x to form ozone, and are regulated to

¹ United States Environmental Protection Agency, Health Effects of Ozone Pollution, <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>, last updated October 10, 2018. Accessed January 23, 2019.

² United States Environmental Protection Agency, Health Effects of Ozone Pollution.

³ United States Environmental Protection Agency, Health Effects of Ozone Pollution.

⁴ California Air Resources Board, Ozone & Health, Health Effects of Ozone, <https://ww2.arb.ca.gov/resources/ozone-and-health>. Accessed January 2019.

⁵ United States Environmental Protection Agency, Health Effects of Ozone Pollution.

⁶ United States Environmental Protection Agency, Health Effects of Ozone Pollution.

⁷ California Air Resources Board, Ozone & Health, Health Effects of Ozone.

⁸ California Air Resources Board, Ozone & Health, Health Effects of Ozone.

⁹ California Air Resources Board, Ozone & Health, Health Effects of Ozone.

prevent the formation of ozone.¹⁰ According to CARB, some VOCs are highly reactive and play a critical role in the formation of ozone, other VOCs have adverse health effects, and in some cases, VOCs can be both highly reactive and have adverse health effects.¹¹ VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids, internal combustion associated with motor vehicle usage, and consumer products (e.g., architectural coatings, etc.).¹²

(c) *Nitrogen Dioxide (NO₂) and Nitrogen Oxides*

NO_x is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include nitrogen dioxide (NO₂) and nitric oxide (NO). Ambient air quality standards have been promulgated for NO₂, which is a reddish-brown, reactive gas.¹³ The principle form of NO_x produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO₂, creating the mixture of NO and NO₂ referred to as NO_x.¹⁴ Major sources of NO_x include emissions from cars, trucks and buses, power plants, and off-road equipment.¹⁵ The terms NO_x and NO₂ are sometimes used interchangeably. However, the term NO_x is typically used when discussing emissions, usually from combustion-related activities, and the term NO₂ is typically used when discussing ambient air quality standards. Where NO_x emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all NO_x emissions would oxidize in the atmosphere to form NO₂. According to the USEPA, short-term exposures to NO₂ can potentially aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), hospital admissions and visits to emergency rooms while longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections.¹⁶ According to CARB, controlled human exposure studies that show that NO₂ exposure can intensify responses to allergens in allergic asthmatics.¹⁷ In addition, a number of epidemiological studies have demonstrated associations between NO₂ exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and

¹⁰ United States Environmental Protection Agency, Technical Overview of Volatile Organic Compounds, <https://www.epa.gov/indoor-air-quality-iaq/technical-overview-volatile-organic-compounds>, last updated April 12, 2017. Accessed January 23, 2019.

¹¹ California Air Resources Board, Toxic Air Contaminants Monitoring, Volatile Organic Compounds, <https://www.arb.ca.gov/aaqm/toxics.htm>, last reviewed June 9, 2016. Accessed January 23, 2018.

¹² California Air Resources Board, Toxic Air Contaminants Monitoring, Volatile Organic Compounds.

¹³ California Air Resources Board, Nitrogen Dioxide & Health, <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health>. Accessed January 23, 2019.

¹⁴ California Air Resources Board, Nitrogen Dioxide & Health.

¹⁵ United States Environmental Protection Agency, Nitrogen Dioxide (NO₂) Pollution, <https://www.epa.gov/no2-pollution/basic-information-about-no2>, last updated September 8, 2016. Accessed January 23, 2019.

¹⁶ United States Environmental Protection Agency, Nitrogen Dioxide (NO₂) Pollution.

¹⁷ California Air Resources Board, Nitrogen Dioxide & Health.

intensified allergic responses.¹⁸ Infants and children are particularly at risk from exposure to NO₂ because they have disproportionately higher exposure to NO₂ than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.¹⁹ CARB states that much of the information on distribution in air, human exposure and dose, and health effects is specifically for NO₂ and there is only limited information for NO and NO_x, as well as large uncertainty in relating health effects to NO or NO_x exposure.²⁰

(d) *Carbon Monoxide (CO)*

Carbon monoxide (CO) is primarily emitted from combustion processes and motor vehicles due to the incomplete combustion of fuel, such as natural gas, gasoline, or wood, with the majority of outdoor CO emissions from mobile sources.²¹ According to the USEPA, breathing air with a high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain and at very high levels, which are possible indoors or in other enclosed environments, CO can cause dizziness, confusion, unconsciousness and death.²² Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease since these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress.²³ In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina.²⁴ According to CARB, the most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain.²⁵ For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress; inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance.²⁶ Unborn babies, infants, elderly people, and people with anemia or with a

¹⁸ California Air Resources Board, Nitrogen Dioxide & Health.

¹⁹ California Air Resources Board, Nitrogen Dioxide & Health.

²⁰ California Air Resources Board, Nitrogen Dioxide & Health.

²¹ California Air Resources Board, Carbon Monoxide & Health, <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>. Accessed January 23, 2019.

²² United States Environmental Protection Agency, Carbon Monoxide (CO) Pollution in Outdoor Air, <https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution>, last updated September 8, 2016. Accessed January 23, 2019.

²³ United States Environmental Protection Agency, Carbon Monoxide (CO) Pollution in Outdoor Air

²⁴ United States Environmental Protection Agency, Carbon Monoxide (CO) Pollution in Outdoor Air

²⁵ California Air Resources Board, Carbon Monoxide & Health.

²⁶ California Air Resources Board, Carbon Monoxide & Health.

history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO.²⁷

(e) *Sulfur Dioxide (SO₂)*

According to the USEPA, the largest source of sulfur dioxide (SO₂) emissions in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities while smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content.²⁸ In 2006, California phased-in the ultra-low-sulfur diesel regulation limiting vehicle diesel fuel to a sulfur content not exceeding 15 parts per million, down from the previous requirement of 500 parts per million, substantially reducing emissions of sulfur from diesel combustion.²⁹ According to the USEPA, short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult.³⁰ According to CARB, health effects at levels near the State one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity and exposure at elevated levels of SO₂ (above 1 part per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.³¹ Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO₂.^{32,33}

(f) *Particulate Matter (PM₁₀ and PM_{2.5})*

Particulate matter air pollution is a mixture of solid particles and liquid droplets found in the air.³⁴ Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye while other particles are so small they can only be detected using an electron microscope.³⁵ Particles are defined by their diameter for air quality regulatory purposes: inhalable particles with diameters that are generally 10 micrometers

²⁷ California Air Resources Board, Carbon Monoxide & Health.

²⁸ United States Environmental Protection Agency, Sulfur Dioxide (SO₂) Pollution, <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>, last updated June 28, 2018. Accessed January 23, 2019.

²⁹ California Air Resources Board, Final Regulation Order, Amendments to the California Diesel Fuel Regulations, Amend Section 2281, Title 13, California Code of Regulations, <https://www.arb.ca.gov/regact/ulsd2003/fro2.pdf>, approved July 15, 2004. Accessed January 23, 2019.

³⁰ United States Environmental Protection Agency, Sulfur Dioxide (SO₂) Pollution.

³¹ California Air Resources Board, Sulfur Dioxide & Health, <https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health>. Accessed January 23, 2019.

³² California Air Resources Board, Sulfur Dioxide & Health.

³³ United States Environmental Protection Agency, Sulfur Dioxide (SO₂) Pollution.

³⁴ United States Environmental Protection Agency, Particulate Matter (PM) Pollution, <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>, last updated November 14, 2018. Accessed January 23, 2019.

³⁵ United States Environmental Protection Agency, Particulate Matter (PM) Pollution.

and smaller (PM₁₀); and fine inhalable particles with diameters that are generally 2.5 micrometers and smaller (PM_{2.5}).³⁶ Thus, PM_{2.5} comprises a portion or a subset of PM₁₀. Sources of PM₁₀ emissions include dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, and wind-blown dust from open lands.³⁷ Sources of PM_{2.5} emissions include combustion of gasoline, oil, diesel fuel, or wood.³⁸ PM₁₀ and PM_{2.5} may be either directly emitted from sources (primary particles) or formed in the atmosphere through chemical reactions of gases (secondary particles) such as SO₂, NO_x, and certain organic compounds.³⁹ According to CARB, both PM₁₀ and PM_{2.5} can be inhaled, with some depositing throughout the airways; PM₁₀ is more likely to deposit on the surfaces of the larger airways of the upper region of the lung while PM_{2.5} is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation.⁴⁰ Short-term (up to 24 hours duration) exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits.⁴¹ The effects of long-term (months or years) exposure to PM₁₀ are less clear, although studies suggest a link between long-term PM₁₀ exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer.⁴² Short-term exposure to PM_{2.5} has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days and long-term exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.⁴³ According to CARB, populations most likely to experience adverse health effects with exposure to PM₁₀ and PM_{2.5} include older adults with chronic heart or lung disease, children, and asthmatics and children and infants are more susceptible to harm from inhaling pollutants such as PM₁₀ and PM_{2.5} compared to healthy adults because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems.⁴⁴

³⁶ United States Environmental Protection Agency, Particulate Matter (PM) Pollution.

³⁷ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀), <https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm>, last reviewed August 10, 2017. Accessed January 23, 2019.

³⁸ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀).

³⁹ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀).

⁴⁰ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀).

⁴¹ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀).

⁴² California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀).

⁴³ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀).

⁴⁴ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀).

(g) *Lead (Pb)*

Major sources of lead emissions include ore and metals processing, piston-engine aircraft operating on leaded aviation fuel, waste incinerators, utilities, and lead-acid battery manufacturers.⁴⁵ In the past, leaded gasoline was a major source of lead emissions; however, the removal of lead from gasoline has resulted in a decrease of lead in the air by 98 percent between 1980 and 2014.⁴⁶ Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system, and affects the oxygen carrying capacity of blood.⁴⁷ The lead effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage.⁴⁸ Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain.⁴⁹

(2) *Other Criteria Pollutants (California Only)*

The California Ambient Air Quality Standards (CAAQS) regulate the same criteria pollutants as the National Ambient Air Quality Standards (NAAQS) but in addition, regulate State-identified criteria pollutants, including sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride.⁵⁰ With respect to the State-identified criteria pollutants (i.e., sulfates, hydrogen sulfide, visibility reducing particles, and vinyl chloride), the Project would either not emit them (i.e., hydrogen sulfide and vinyl chloride), or they would be accounted for as part of the pollutants estimated in this analysis (i.e., sulfates and visibility reducing particles). For example, visibility reducing particles are associated with particulate matter emissions and sulfates are associated with SO_x emissions. Both particulate matter and SO_x are included in the emissions estimates for the Project. A description of the health effects of the State-identified criteria air pollutants is provided below.

(a) *Sulfates (SO₄²⁻)*

Sulfates (SO₄²⁻) in the environment occur as a result of SO₂ (sulfur dioxide) being converted to SO₄²⁻ compounds in the atmosphere where sulfur is first oxidized to SO₂ during the combustion process of sulfur containing, petroleum-derived fuels (e.g.,

⁴⁵ United States Environmental Protection Agency, Lead Air Pollution, <https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution>, last updated November 29, 2017. Accessed January 23, 2019.

⁴⁶ United States Environmental Protection Agency, Lead Air Pollution.

⁴⁷ United States Environmental Protection Agency, Lead Air Pollution.

⁴⁸ California Air Resources Board, Lead & Health, <https://ww2.arb.ca.gov/resources/lead-and-health>. Accessed January 23, 2019.

⁴⁹ California Air Resources Board, Lead & Health.

⁵⁰ California Air Resources Board, Vinyl Chloride, 2009, <https://www.arb.ca.gov/research/aaqs/caaqs/vc/vc.htm>. Accessed January 23, 2019.

gasoline and diesel fuel).⁵¹ Exposure to SO_4^{2-} , which are part of $\text{PM}_{2.5}$, results in health effects similar to those from exposure to $\text{PM}_{2.5}$ including reduced lung function, aggravated asthmatic symptoms, and increased risk of emergency department visits, hospitalizations, and death in people who have chronic heart or lung diseases.⁵² Population groups with higher risks of experiencing adverse health effects with exposure to SO_4^{2-} include children, asthmatics, and older adults who have chronic heart or lung diseases.⁵³

(b) *Hydrogen Sulfide (H_2S)*

H_2S is a colorless gas with a strong odor of rotten eggs. The most common sources of H_2S emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. Industrial sources of H_2S include petrochemical plants and kraft paper mills. H_2S is also formed during bacterial decomposition of human and animal wastes, and is present in emissions from sewage treatment facilities and landfills.⁵⁴ Exposure to H_2S can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 ppm, which is considerably higher than the odor threshold.⁵⁵ H_2S is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level.⁵⁶ According to CARB, there are insufficient data available to determine whether or not some groups are at greater risk than others.⁵⁷

(c) *Visibility-Reducing Particles*

Visibility-reducing particles come from a variety of natural and manmade sources and can vary greatly in shape, size and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. Certain visibility-reducing particles are directly emitted to the air such as windblown dust and soot, while others are formed in the atmosphere through chemical transformations of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of particulate matter. As the number of visibility reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color,

⁵¹ California Air Resources Board, Sulfate & Health, <https://ww2.arb.ca.gov/resources/sulfate-and-health>. Accessed January 23, 2019.

⁵² California Air Resources Board, Sulfate & Health.

⁵³ California Air Resources Board, Sulfate & Health.

⁵⁴ California Air Resources Board, Hydrogen Sulfide & Health, <https://ww2.arb.ca.gov/resources/hydrogen-sulfide-and-health>. Accessed January 23, 2019.

⁵⁵ California Air Resources Board, Hydrogen Sulfide & Health.

⁵⁶ California Air Resources Board, Hydrogen Sulfide & Health.

⁵⁷ California Air Resources Board, Hydrogen Sulfide & Health.

and visual range.⁵⁸ Exposure to some haze-causing pollutants have been linked to adverse health impacts similar to PM10 and PM2.5 as discussed above.⁵⁹

(d) Vinyl Chloride

Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products and are generally emitted from industrial processes and other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.⁶⁰ Short-term health effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans.⁶¹ Most health data on vinyl chloride relate to carcinogenicity; thus, the people most at risk are those who have long-term exposure to elevated levels, which is more likely to occur in occupational or industrial settings; however, control methodologies applied to industrial facilities generally prevent emissions to the ambient air.⁶²

(3) Toxic Air Contaminants

In addition to criteria pollutants, the SCAQMD periodically assesses levels of toxic air contaminants (TACs) in the Air Basin. A TAC is defined by California Health and Safety Code Section 39655:

“Toxic air contaminant” means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a toxic air contaminant.

Diesel particulate matter, which is emitted in the exhaust from diesel engines, was listed by the State as TAC in 1998. Most major sources of diesel emissions, such as ships, trains, and trucks operate in and around ports, railyards, and heavily traveled roadways. These areas are often located near highly populated areas resulting in greater health consequences for urban areas than rural areas.⁶³ Diesel particulate matter has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. Diesel particulate matter consists of fine particles (fine particles have a

⁵⁸ California Air Resources Board, Visibility-Reducing Particles and Health, last reviewed October 11, 2016, <https://www.arb.ca.gov/research/aaqs/common-pollutants/vrp/vrp.htm>. Accessed January 23, 2019.

⁵⁹ California Air Resources Board, Visibility-Reducing Particles and Health.

⁶⁰ California Air Resources Board, Vinyl Chloride & Health, <https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health>. Accessed January 23, 2019.

⁶¹ California Air Resources Board, Vinyl Chloride & Health.

⁶² California Air Resources Board, Vinyl Chloride & Health.

⁶³ California Air Resources Board, Overview: Diesel Exhaust and Health, <https://www.arb.ca.gov/research/diesel/diesel-health.htm>. Accessed February 1, 2019.

diameter $<2.5 \mu\text{m}$), including a subgroup of ultrafine particles (ultrafine particles have a diameter $<0.1 \mu\text{m}$). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or “soot.” Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to diesel particulate matter may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Diesel particulate matter levels and resultant potential health effects may be higher in proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, diesel particulate matter exposure may lead to the following adverse health effects: (1) Aggravated asthma; (2) Chronic bronchitis; (3) Increased respiratory and cardiovascular hospitalizations; (4) Decreased lung function in children; (5) Lung cancer; and (6) Premature deaths for people with heart or lung disease.^{64,65}

Between July 2012 and June 2013, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES IV), which is a follow-up to previous air toxics studies conducted in the Air Basin. The MATES IV Final Report was issued in May 2015. The study, based on actual monitored data throughout the Air Basin, consisted of several elements. These included a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize carcinogenic risk across the Air Basin from exposure to TACs. The study concluded that the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Air Basin equates to a background cancer risk from long-term inhalation exposure to TAC emissions of approximately 418 in one million based on the average of 10 fixed monitoring sites and 367 in one million based on a population-weighted average risk. The overall cancer risk was about 65 percent lower for the average of 10 fixed monitoring sites and 57 percent lower for the population-weighted risk than the previous MATES III cancer risks.⁶⁶

Subsequent to the SCAQMD’s risk calculations estimates performed for MATES IV, the Office of Environmental Health Hazard Assessment (OEHHA) updated its methods for estimating cancer risks, which utilizes higher estimates of cancer potency during early life exposures and uses different assumptions for breathing rates and length of residential

⁶⁴ California Air Resources Board, Diesel and Health Research, <http://www.arb.ca.gov/research/diesel/diesel-health.htm>. Accessed February 1, 2019.

⁶⁵ California Air Resources Board, Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, (2008), <http://www.arb.ca.gov/ch/communities/ra/westoakland/documents/factsheet0308.pdf>. Accessed February 1, 2019.

⁶⁶ South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, 2015, ES-2-3, <http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7>. Accessed January 23, 2019.

exposures.⁶⁷ In March 2015, OEHHA adopted an updated guidance manual that incorporates advances in risk assessment with consideration of increased cancer potency for infants and children using Age Sensitivity Factors (ASF). The updated guidance manual also uses different assumptions for breathing rates and length of residential exposures. SCAQMD staff estimates that risks for the same long-term inhalation exposure level would be about 2.5 to 2.7 times higher using the updated methods, which would cause the average lifetime air toxics risk estimated from the monitoring sites data to change from 418 in one million to 1,023 in one million for the average of 10 fixed monitoring sites and from 367 in one million to 897 in one million for the population-weighted risk.⁶⁸ Under the updated OEHHA methodology, the relative reduction in the overall cancer risk from the MATES IV results compared to MATES III would be the same (about 65 percent and 57 percent reduction in risk, respectively).

Approximately 68 percent of the risk is attributed to diesel particulate matter (DPM) emissions, approximately 22 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 10 percent of all airborne carcinogenic risk is attributed to stationary sources (which include industries and certain other businesses, such as dry cleaners and chrome plating operations).⁶⁹ The study also found lower ambient concentrations of most of the measured air toxics compared to the levels measured in the previous study conducted during 2004 and 2006. Specifically, benzene and 1,3-butadiene, pollutants generated mainly from vehicles, were down 35 percent and 11 percent, respectively.⁷⁰ The reductions were attributed to air quality control regulations and improved emission control technologies. In addition to air toxics, MATES IV included continuous measurements of black carbon and ultrafine particles (particles smaller than 0.1 microns in size), which are emitted by the combustion of diesel fuels. Sampling sites located near heavily-trafficked freeways or near industrial areas were characterized by higher levels of black carbon and ultrafine particles compared to more rural sites.

⁶⁷ California Environmental Protection Agency, Office of Health Hazard Assessment, Air Toxics Hot Spots Program, Guidance Manual for Preparation of Health Risk Assessments, 2015, <http://oehha.ca.gov/air/cnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>. Accessed January 23, 2019.

⁶⁸ South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, page 2-11.

⁶⁹ South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, page ES-2.

⁷⁰ South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, page 6-1.

b) Regulatory Framework

(1) Federal

The Federal Clean Air Act (CAA) was enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990.⁷¹ The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare.⁷² The USEPA is responsible for the implementation and enforcement of the CAA, which establishes federal NAAQS, specifies future dates for achieving compliance, and requires USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to the Project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).^{73,74}

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. The NAAQS were amended in July 1997 to include an 8-hour standard for ozone and to adopt a NAAQS for PM_{2.5}. The NAAQS were also amended in September 2006 to include an established methodology for calculating PM_{2.5}, as well to revoke the annual PM₁₀ threshold. **Table IV.B-1, *Ambient Air Quality Standards***, shows the NAAQS currently in effect for each criteria pollutant. The NAAQS and the CAAQS for the California criteria air pollutants (discussed below) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings.⁷⁵

⁷¹ 42 United States Code §7401 et seq. (1970).

⁷² United States Environmental Protection Agency, Summary of the Clean Air Act, <https://www.epa.gov/laws-regulations/summary-clean-air-act>. Accessed October 2018.

⁷³ United States Environmental Protection Agency, Clean Air Act Overview, Clean Air Act Table of Contents by Title, Last Updated January 3, 2017, <https://www.epa.gov/clean-air-act-overview/clean-air-act-text>. Accessed October 2018. As shown therein, Title I addresses nonattainment areas and Title II addresses mobile sources.

⁷⁴ Mobile sources include on-road vehicles (e.g. cars, buses, motorcycles) and non-road vehicles e.g. aircraft, trains, construction equipment). Stationary sources are comprised of both point and area sources. Point sources are stationary facilities that emit large amount of pollutants (e.g. municipal waste incinerators, power plants). Area sources are smaller stationary sources that alone are not large emitters, but combined can account for large amounts of pollutants (e.g. consumer products, residential heating, dry cleaners).

⁷⁵ United States Environmental Protection Agency, NAAQS Table, <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. Accessed August 2018.

**TABLE IV.B-1
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
O ₃ ^h	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
NO ₂ ⁱ	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m ³)	None	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		53 ppb (100 µg/m ³)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m ³)		9 ppm (10 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
SO ₂ ^j	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) ^g
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ^j	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ^j	—	
PM10 ^k	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
PM2.5 ^k	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ^{3 k}	15 µg/m ³	

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
Lead ^{l,m}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ^m	Same as Primary Standard	
	Rolling 3-Month Average ^m	--		0.15 µg/m ³		
Visibility Reducing Particles ⁿ	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates (SO ₄)	24 Hour	25 µg/m ³	Ion Chroma-tography	No Federal Standards		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence	No Federal Standards		
Vinyl Chloride ^l	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chroma-tography	No Federal Standards		

^a California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter (µg/m³) is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

^c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

^d Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

^e National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

^f National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^g Reference method as described by the USEPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the USEPA.

^h On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
ⁱ To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.						
^j On June 2, 2010, a new 1-hour SO ₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO ₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.						
^k On December 14, 2012, the national annual PM _{2.5} primary standard was lowered from 15 µg/m ³ to 12.0 µg/m ³ .						
^l The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.						
^m The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m ³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.						
ⁿ In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.						

SOURCE: California Air Resources Board, Ambient Air Quality Standards (5/4/16). Available: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed June 2018.

In addition to criteria pollutants, Title I also includes air toxics provisions which require USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112, USEPA establishes National Emission Standards for Hazardous Air Pollutants (NESHAPs). The list of hazardous air pollutants (HAPs), or air toxics, includes specific compounds that are known or suspected to cause cancer or other serious health effects.

Title II requirements pertain to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_x emissions have been lowered substantially, and the specification requirements for cleaner burning gasoline are more stringent.

(2) State of California

(a) California Air Resources Board

CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of

local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's SIP, for which it works closely with the federal government and the local air districts. The SIP is required for the state to take over implementation of the federal CAA from USEPA.

(b) California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of California to achieve and maintain the CAAQS. The CAAQS are established to protect the health of the most sensitive groups and apply to the same criteria pollutants as the federal CAA and also includes State-identified criteria pollutants, which are sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride.⁷⁶ CARB has primary responsibility for ensuring implementation of the CCAA,⁷⁷ responding to the federal CAA planning requirements applicable to the State, and regulating emissions from motor vehicles and consumer products within the State. Table IV.B-1 shows the CAAQS currently in effect for each of the federally recognized criteria pollutants as well as the additional pollutants recognized by the State. Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria.

(c) California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by the state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

(d) On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs (Title 13 CCR, Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

⁷⁶ California Air Resources Board, California Ambient Air Quality Standards (CAAQS), last reviewed August 10, 2017.

⁷⁷ Chapter 1568 of the Statutes of 1988.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_x, PM₁₀, and PM_{2.5} emissions from existing diesel vehicles operating in California (13 CCR, Section 2025). The requirements were amended to apply to nearly all diesel-fueled trucks and busses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. For the largest trucks in the fleet, those with a GVWR greater than 26,000 pounds, there are 2 methods to comply with the requirements. The first way is for the fleet owner to retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards, or better. This is phased over 8 years, starting in 2015 and would be fully implemented by 2023, meaning that all trucks operating in the State subject to this option would meet or exceed the 2010 engine emission standards for NO_x and PM by 2023. The second option, if chosen, requires fleet owners, starting in 2012, to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016 their entire fleet is equipped with diesel particulate filters (DPFs). However, DPFs do not typically lower NO_x emissions. Thus, fleet owners choosing the second option must still comply with the 2010 engine emission standards for their trucks and busses by 2020.

In addition to limiting exhaust from idling trucks, CARB also recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models (13 CCR, Section 2449). Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance in 2014, medium fleets in 2017, and small fleets in 2019. Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (VDECS) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits (VDECS installation) be fully implemented by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

(e) *Toxic Air Contaminants*

The California Air Toxics Program was established in 1983, when the California Legislature adopted AB 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or “listed”, as a TAC in California. Since inception of the program, a number of such substances have been listed (www.arb.ca.gov/toxics.id/taclist.htm). In 1993, the California Legislature

amended the program to identify the 189 federal hazardous air pollutants (HAPs) as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on the results of that review, CARB has promulgated a number of ATCMs, both for mobile and stationary sources (www.arb.ca.gov/toxics.atcm/atcm.htm). As discussed above, in 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

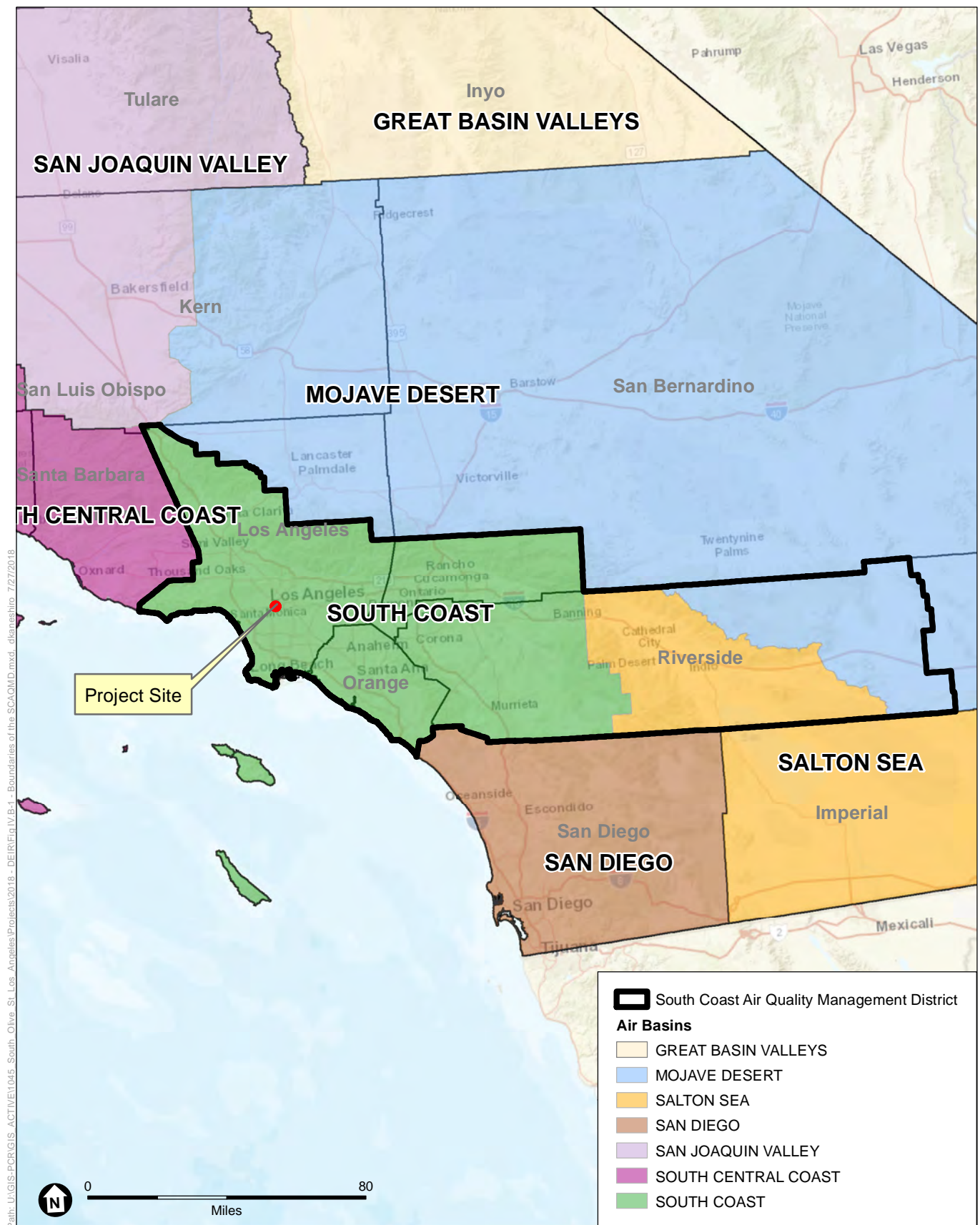
In addition to limiting exhaust from idling trucks, as discussed above, CARB promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by CARB on July 26, 2007, aims to reduce emissions by the installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014.

The AB 1807 program is supplemented by the AB 2588 Air Toxics “Hot Spots” program, which was established by the California Legislature in 1987. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

(3) Regional

(a) *South Coast Air Quality Management District*

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the South Coast Air Basin (Air Basin) which includes all of Orange County, Los Angeles County (excluding the Antelope Valley portion), the western, non-desert portion of San Bernardino County, and the western Coachella Valley and San Gorgonio Pass portions of Riverside County. The Air Basin is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Air Basin is a subregion within the western portion of the SCAQMD jurisdiction – the SCAQMD also regulates portions of the Salton Sea Air Basin and Mojave Desert Air Basin within Riverside County. **Figure IV.B-1, *Boundaries of the South Coast Air Quality Management District***, illustrates the location of the Air Basin. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.



SOURCE: California Air Resources Board, March 2004

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Figure IV.B-1
Boundaries of the South Coast Air Quality Management District

(i) *Air Quality Management Plan*

The SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS. The 2012 AQMP incorporates scientific and technological information and planning assumptions, including regional growth projections⁷⁸ to achieve federal standards for air quality in the Air Basin. The 2012 AQMP incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. The 2012 AQMP includes new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. Additionally, the 2012 AQMP highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal CAA.

The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour PM_{2.5} standard. The 2012 AQMP also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour O₃ standard deadline with new measures designed to reduce reliance on the federal CAA Section 182(e)(5) long-term measures for NO_x and VOC reductions. The SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies, as well as improvement of existing technologies.

The control measures in the 2012 AQMP consist of 4 components: (1) Basin-wide and Episodic Short-term PM_{2.5} Measures; (2) Contingency Measures; (3) 8-hour Ozone Implementation Measures; and (4) Transportation and Control Measures provided by the Southern California Association of Governments (SCAG). The Plan includes eight short-term PM_{2.5} control measures, 16 stationary source 8-hour ozone measures, 10 early-action measures for mobile sources and 7 early-action measures to accelerate near-zero and zero emission technologies for goods movement-related sources, and 5 on-road and 5 off-road mobile source control measures. In general, SCAQMD's control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of zero- and near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources. Control strategies in the AQMP with potential applicability to reducing short-term emissions from construction activities associated with the Project include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road

⁷⁸ South Coast Air Quality Management District, 2012 Air Quality Management Plan, 2013, <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>. Accessed February 2018.

heavy-duty vehicles and equipment.⁷⁹ Descriptions of measures ONRD-04 and OFFRD-01 are provided below:

ONRD-04 – Accelerated Retirement of Older On-Road Heavy-Duty Vehicles: This measure seeks to replace up to 1,000 heavy-duty vehicles per year with newer or new vehicles that at a minimum, meet the 2010 on-road heavy-duty NO_x exhaust emissions standard of 0.2 grams per brake horsepower-hour (g/bhp-hr).

OFFRD-01 – Extension of the Soon Provision for Construction/Industrial Equipment: This measure continues the Surplus Off-Road Option for NO_x (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation beyond 2014 through the 2023 timeframe.

The SCAQMD Governing Board adopted the 2016 AQMP on March 3, 2017.⁸⁰ CARB approved the 2016 AQMP on March 23, 2017.⁸¹ Key elements of the 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, State, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero-emissions technologies; and taking credit from co-benefits from greenhouse gas, energy, transportation and other planning efforts.⁸² The strategies included in the 2016 AQMP are intended to demonstrate attainment of the NAAQS for the federal non-attainment pollutants ozone and PM_{2.5}.⁸³ While the 2016 AQMP has been adopted by SCAQMD and CARB, it has not yet received USEPA approval for inclusion in the SIP. Therefore, until such time as the 2016 AQMP has been approved by USEPA, the 2012 AQMP remains the applicable AQMP for federal purposes; however, the 2016 AQMP is used in the analyses in this section, since it has been adopted by both SCAQMD and CARB. The 2016 AQMP incorporates the above-listed 2012 AQMP control strategies, which are designated as MOB-08 and MOB-10.⁸⁴

⁷⁹ South Coast Air Quality Management District, Final 2012 AQMP, 2013, [http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-\(february-2013\)/main-document-final-2012.pdf](http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/main-document-final-2012.pdf). Accessed November 1, 2017.

⁸⁰ South Coast Air Quality Management District, Air Quality Management Plan, <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed November 1, 2017.

⁸¹ California Air Resources Board, News Release - CARB establishes next generation of emission controls needed to improve state's air quality, <https://ww2.arb.ca.gov/news/carb-establishes-next-generation-emission-controls-needed-improve-states-air-quality>. Accessed November 1, 2017.

⁸² South Coast Air Quality Management District, Air Quality Management Plan (AQMP), <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed November 1, 2017.

⁸³ South Coast Air Quality Management District, NAAQS/CAAQS and Attainment Status for South Coast Air Basin, 2016, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2>. Accessed March 1, 2017.

⁸⁴ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed November 1, 2017.

(ii) *SCAQMD Air Quality Guidance Documents*

The SCAQMD published the *CEQA Air Quality Handbook* to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts.⁸⁵ The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) and the on-road mobile source emission factors in Table A9-5-J1 through A9-5 of the Handbook as they are outdated. The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod) software.

The SCAQMD has also adopted land use planning guidelines in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions.⁸⁶ SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* for CEQA Evaluations that is intended to provide guidance when evaluating the localized effects from mass emissions during construction.⁸⁷ The SCAQMD adopted additional guidance regarding PM_{2.5} emissions in a document called *Final Methodology to Calculate Particulate Matter (PM)_{2.5} and PM_{2.5} Significance Thresholds*.⁸⁸ This latter document has been incorporated by the

⁸⁵ South Coast Air Quality Management District, *CEQA Air Quality Handbook* 1993, [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). Accessed June 2018.

⁸⁶ South Coast Air Quality Management District, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, 2005, <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4>. Accessed March 1, 2017.

⁸⁷ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, 2008, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>. Accessed June 2018.

⁸⁸ South Coast Air Quality Management District, *Final Methodology to Calculate Particulate Matter (PM)_{2.5} and PM_{2.5} Significance Thresholds*, 2006, [http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-\(pm\)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-(pm)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf?sfvrsn=2). Accessed June 2018.

SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

(iii) SCAQMD Rules and Regulations

The SCAQMD has adopted many rules and regulations to regulate sources of air pollution in the Air Basin and to help achieve air quality standards. The Project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which apply to the Project:

- **Rule 401 – Visible Emissions:** This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.
- **Rule 402 – Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 – Fugitive Dust:** This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by USEPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for specific sources. The following is a list of rules which may apply to the Project:

- **Rule 1113 – Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- **Rule 1138 – Control of Emissions from Restaurant Operations:** This rule specifies PM and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.
- **Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters:** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- **Rule 1186 – PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations:** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Regulation XIII – New Source Review (NSR): Regulation XIII sets requirements for preconstruction review required under both federal and state statutes for new and modified sources located in areas that do not meet the Clean Air Act standards ("non-attainment" areas). NSR applies to both individual permits and entire facilities. Any permit that has a net increase in emissions is required to apply BACT. Facilities with a net increase in emissions are required to offset the emission increase by use of Emission Reduction Credits (ERCs). The regulation provides for the application, eligibility, registration, use and transfer of ERCs. For low emitting facilities, the SCAQMD maintains an internal bank that can be used to provide the required offsets. In addition, certain facilities are subject to provisions that require public notice and modeling analysis to determine the downwind impact prior to permit issuance.

Regulation XIV – Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria pollutants. The following is a list of rules which may apply to the Project:

- **Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities:** This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

- **Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines:** This rule applies to stationary compression ignition (CI) engine greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

(b) *Southern California Association of Governments*

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the Southern California region, and is the largest MPO in the nation.

Pursuant to Health & Safety Code Section 40460, SCAG is responsible for preparing and approving the portions of the AQMP relating to regional demographic projections and integrated regional land use, housing, employment and transportation programs, measures and strategies.⁸⁹ SCAG adopted the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS) in April 2016, which contains such regional development and growth forecasts. These regional development and growth forecasts form the basis for the land use and transportation control portions of the 2016 AQMP, and its growth forecasts were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2016 AQMP.⁹⁰ Both the RTP/SCS and the AQMP are based on projections that originate with local jurisdictions.

SCAG is required to adopt an SCS along with its RTP pursuant to SB 375 (Chapter 728, Statutes of 2008), which required the development of regional targets for reducing passenger vehicle greenhouse gas (GHG) emissions. Under SB 375, CARB is required, in consultation with the state's MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. In February 2011, CARB adopted the final GHG emissions reduction targets for SCAG, within whose jurisdiction the City of Los Angeles is located. SCAG's target is a per capita reduction of 8 percent for 2020 and 13 percent for 2035 compared to the 2005 baseline.⁹¹ SCAG's 2016-2040 RTP/SCS meets or exceeds these targets, lowering GHG emissions (below 2005 levels)

⁸⁹ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

⁹⁰ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

⁹¹ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016, page 8, <http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

by eight percent by 2020; 18 percent by 2035; and 21 percent by 2040.⁹² Of note, the proposed reduction targets explicitly exclude emission reductions expected from AB 1493 and the low carbon fuel standard regulations. Compliance with and implementation of 2016-2040 RTP/SCS policies and strategies would also reduce per capita criteria air pollutant emissions due to reduced per capita vehicle miles traveled (VMT).

SCAG's SCS is "built on a foundation of contributions from communities, cities, counties and other local agencies" and "based on local general plans as well as input from local governments."⁹³ The SCS provides specific strategies for successful implementation. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and education, recreation, cultures, and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles.

(4) Local

(a) *City of Los Angeles Air Quality Element*

Local jurisdictions, such as the City, have the authority and responsibility to reduce air pollution through their land use decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City's General Plan Air Quality Element was adopted on November 24, 1992, and sets forth the goals, objectives, and policies which guide the City in its implementation of its air quality improvement programs and strategies. A number of these goals, objectives, and policies are relevant to the proposed Project, and relate to traffic mobility, minimizing particulate emissions from construction activities, discouraging single-occupancy vehicle trips, managing traffic congestion during peak hours, and increasing energy efficiency in City facilities and private developments.

The Air Quality Element establishes six goals:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;

⁹² Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016, page 153, <http://scagrtpscsc.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

⁹³ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016, page 75, <http://scagrtpscsc.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimal impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution

The City is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, the City can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

c) Existing Conditions

(1) Regional Context

(a) Criteria Pollutants

The extent and severity of pollutant concentrations in the Air Basin are a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential. The Air Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone, which is a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the worst air pollution conditions throughout the Air Basin typically occur from June through September. These conditions are generally attributed to the seasonally light winds and shallow vertical atmospheric mixing, which reduce the potential for the dispersal of air pollutant emissions, thereby causing elevated air pollutant levels. Pollutant concentrations in the Air Basin vary with location, season, and time of day. Concentrations of ozone, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Air Basin and adjacent desert.⁹⁴ **Table IV.B-2, South Coast Air Basin**

⁹⁴ South Coast Air Quality Management District, 2016 Air Quality Management Plan (2017), <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>. Accessed August 2018.

Attainment Status (Los Angeles County), shows the attainment status of the Air Basin for each criteria pollutant.

**TABLE IV.B-2
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)**

Pollutant	National Standards (NAAQS)	California Standards (CAAQS)
O ₃ (1-hour standard)	N/A ^a	Non-attainment – Extreme
O ₃ (8-hour standard)	Non-attainment – Extreme	Non-attainment
CO	Attainment	Attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
PM ₁₀	Attainment	Non-attainment
PM _{2.5}	Non-attainment – Serious	Non-attainment
Lead (Pb)	Non-attainment (Partial) ^b	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride ^c	N/A	N/A

N/A = not applicable

^a The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

^b Partial Non-attainment designation – Los Angeles County portion of the Air Basin only for near-source monitors.

^c In 1990, the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

SOURCE: United States Environmental Protection Agency, The Green Book Non-Attainment Areas for Criteria Pollutants, <https://www.epa.gov/green-book>; California Air Resources Board, Area Designations Maps/State and National, <http://www.arb.ca.gov/design/adm/adm.htm>. Accessed November 2017.

As shown in Table IV.B-2, the Air Basin is designated under federal or state ambient air quality standards as nonattainment for O₃, PM₁₀, and PM_{2.5}. The Los Angeles County portion of the Air Basin is designated as nonattainment for the federal lead standard; however, this is due to localized emissions from two lead-acid battery recycling facilities in the City of Vernon and the City of Industry that are no longer operating. ⁹⁵

⁹⁵ South Coast Air Quality Management District, Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012.

As detailed in the AQMP, the major sources of air pollution in the Air Basin are divided into four major source classifications: point, and area stationary sources, and on-road and off-road mobile sources. Point and area sources are the two major subcategories of stationary sources.⁹⁶ Point sources are permitted facilities that contain one or more emission sources at an identified location (e.g., power plants, refineries, emergency generator exhaust stacks). Area sources consist of many small emission sources (e.g., residential water heaters, architectural coatings, consumer products, restaurant charbroilers and permitted sources such as large boilers) which are distributed across the region. Mobile sources consist of two main subcategories: On-road sources (such as cars and trucks) and off-road sources (such as heavy construction equipment).

(b) *Toxic Air Contaminants*

In addition to criteria pollutants, the SCAQMD periodically assesses levels of TACs in the Air Basin. The greatest potential for TAC emissions during construction is related to diesel particulate matter emissions associated with heavy-duty equipment. During long-term operations, sources of DPM may include heavy duty diesel-fueled delivery trucks and stationary emergency generators.

(2) Local Area Conditions

(a) *Existing Ambient Air Quality in the Surrounding Area*

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring station most representative of the Project Site is the Central Los Angeles County Monitoring Station, located at 1630 North Main Street, Los Angeles, CA 90012. Criteria pollutants monitored at this station include ozone, NO₂, CO, SO₂, Pb, PM₁₀, and PM_{2.5}. The most recent data available from the SCAQMD for this monitoring station are from years 2015 to 2017.⁹⁷ The pollutant concentration data for these years are summarized in **Table IV.B-3, Ambient Air Quality in the Project Vicinity**. As shown in Table IV.B-3, the CAAQS and NAAQS were not exceeded in the Project Site vicinity for most pollutants between 2015 and 2017, except for O₃, PM₁₀, and PM_{2.5}.

⁹⁶ South Coast Air Quality Management District, 2016 Air Quality Management Plan, 2017, page 3-32, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>. Accessed June 2018.

⁹⁷ South Coast Air Quality Management District, Historical Data by Year, (2015 to 2017), <http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>. Accessed April 2018.

**TABLE IV.B-3
AMBIENT AIR QUALITY IN THE PROJECT VICINITY**

Pollutant/Standard ^a	2015	2016	2017
Ozone, O₃ (1-hour)			
Maximum Concentration (ppm)	0.104	0.103	0.116
Days > CAAQS (0.09 ppm)	2	2	6
Ozone, O₃ (8-hour)			
Maximum Concentration (ppm)	0.074	0.078	0.086
4 th High 8-hour Concentration (ppm)	0.072	0.071	0.080
Days > CAAQS (0.070 ppm)	6	4	14
Days > NAAQS (0.070 ppm)	6	4	14
Nitrogen Dioxide, NO₂ (1-hour)			
Maximum Concentration (ppm)	0.079	0.065	0.081
Days > CAAQS (0.18 ppm)	0	0	0
98 th Percentile Concentration (ppm)	0.062	0.061	0.062
Days > NAAQS (0.100 ppm)	0	0	0
Nitrogen Dioxide, NO₂ (Annual)			
Annual Arithmetic Mean (0.030 ppm)	0.022	0.020	0.021
Carbon Monoxide, CO (1-hour)			
Maximum Concentration (ppm)	3.2	1.9	1.9
Days > CAAQS (20 ppm)	0	0	0
Days > NAAQS (35 ppm)	0	0	0
Carbon Monoxide, CO (8-hour)			
Maximum Concentration (ppm)	1.8	1.4	1.6
Days > CAAQS (9.0 ppm)	0	0	0
Days > NAAQS (9 ppm)	0	0	0
Sulfur Dioxide, SO₂ (1-hour)			
Maximum Concentration (ppm)	0.013	0.013	0.006
Days > CAAQS (0.25 ppm)	0	0	0
99 th Percentile Concentration (ppm)	0.006	0.003	0.003
Days > NAAQS (0.075 ppm)	0	0	0
Sulfur Dioxide, SO₂ (24-hour)			
Maximum Concentration (ppm)	0.001	0.001	0.001
Days > CAAQS (0.04 ppm)	0	0	0
Respirable Particulate Matter, PM₁₀ (24-hour)			
Maximum Concentration (µg/m ³)	88	67	96
Samples > CAAQS (50 µg/m ³)	26	18	41
Samples > NAAQS (150 µg/m ³)	0	0	0
Respirable Particulate Matter, PM₁₀ (Annual)			
Annual Arithmetic Mean (20 µg/m ³)	33.1	32.4	34.4

Pollutant/Standard ^a	2015	2016	2017
Fine Particulate Matter, PM2.5 (24-hour)			
Maximum Concentration ($\mu\text{g}/\text{m}^3$)	56.4	44.4	49.2
98th Percentile Concentration ($\mu\text{g}/\text{m}^3$)	38.0	27.3	27.8
Samples > NAAQS (35 $\mu\text{g}/\text{m}^3$)	7	2	5
Fine Particulate Matter, PM2.5 (Annual)			
Annual Arithmetic Mean (12 $\mu\text{g}/\text{m}^3$)	12.4	11.8	11.9
Lead			
Maximum 30-day average ($\mu\text{g}/\text{m}^3$)	0.013	0.016	0.017
Samples > CAAQS (1.5 $\mu\text{g}/\text{m}^3$)	0	0	0
Maximum 3-month rolling average ($\mu\text{g}/\text{m}^3$)	0.01	0.01	0.01
Days > NAAQS (0.15 $\mu\text{g}/\text{m}^3$)	0	0	0

^a ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

SOURCE: South Coast Air Quality Management District, Historical Data by Year, <http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>; California Air Resources Board, Air Quality Data Statistics, <http://www.arb.ca.gov/adam/>; U.S. Environmental Protection Agency, AirData, http://www.epa.gov/airdata/ad_rep_mon.html. Accessed February 2019.

(b) Existing Health Risk in the Surrounding Area

As discussed above in subsection IV.B.2.a)(3), *Toxic Air Contaminants*, between July 2012 and June 2013, the SCAQMD conducted the MATES IV Study, which is a follow-up to previous air toxics studies conducted in the Air Basin. The Study concluded the overall cancer risk was about 65 percent lower for the average of 10 fixed monitoring sites and 57 percent lower for the population-weighted risk than the previous MATES III cancer risks.⁹⁸

Approximately 68 percent of the airborne carcinogenic risk is attributed to DPM emissions, approximately 22 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 10 percent is attributed to stationary sources (which include industries and certain other businesses, such as dry cleaners and chrome plating operations).⁹⁹ The reductions were attributed to air quality control regulations and improved emission control technologies.

The SCAQMD has prepared a series of maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide

⁹⁸ South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, page ES-2- 3.

⁹⁹ South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, 2015, page ES-2, <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-iv>. Accessed June 2018.

insight into relative risks. The maps represent the estimated number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years). The background potential cancer risk per million people in the Project Site area using the updated OEHHA methodology is estimated at 1,516 in one million (compared to an overall Air Basin-wide risk of 1,023 in one million for the average of 10 fixed monitoring sites).¹⁰⁰ Generally, the risk from air toxics is lower near the coastline and increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports).

(c) *Existing Site Emissions*

The Project Site is located within the Downtown area of the City and is currently developed with five commercial buildings totaling 35,651 square feet and an approximately 5,952 square-foot paved parking and hardscape area for a total of 41,603 square feet. These existing uses would be demolished and removed to allow for development of the Project.

Existing emissions are associated with vehicle trips to and from the Project Site, on-site combustion of natural gas for heating, and fugitive emissions of VOCs from the use of aerosol products and coatings. Existing emissions have been estimated using the CalEEMod software, which is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. CalEEMod is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.¹⁰¹

CalEEMod was used to estimate the existing site emissions from vehicle trips, natural gas appliances and equipment, and fugitive VOC emissions. Building natural gas usage rates have been adjusted to account for prior Title 24 Building Energy Efficiency Standards.¹⁰² Mobile source emissions have been estimated based on CARB's on-road vehicle emissions factor (EMFAC) model, EMFAC2017, which is also incorporated into CalEEMod and using trip rates from the Project's transportation study.¹⁰³ A detailed

¹⁰⁰ South Coast Air Quality Management District, Multiple Air Toxics Exposure Study, MATES IV Carcinogenic Risk Interactive Map, <https://scaqmd-online.maps.arcgis.com/apps/webappviewer/index.html?id=470c30bc6daf4ef6a43f0082973ff45f>. Accessed June 2018.

¹⁰¹ See: <http://www.caleemod.com>.

¹⁰² California Air Resources Board, CalEEMod User's Guide, Appendix E-5, September 2016, http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/06_appendix-e2016-3-1.pdf?sfvrsn=2. Accessed June 2018. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

¹⁰³ The Mobility Group, 1045 Olive Project Transportation Study, June 2019. See Appendix N of this Draft EIR for more details.

discussion of the methodology used to estimate the existing Project Site emissions is provided below. The existing Project Site emissions are summarized in **Table IV.B-4, Estimated Existing Site Regional Operational Emissions**. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

TABLE IV.B-4
EXISTING SITE OPERATIONAL EMISSIONS (POUNDS PER DAY) ^A

Source	VOC	NOX	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	<1	<1	<1	0	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1	<1	<1
Motor Vehicles	1	2	9	<1	<1	<1
Total Existing Emissions	2	2	9	<1	<1	<1

^A Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

SOURCE: ESA, 2018.

(d) *Sensitive Receptors and Locations*

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. As a result, certain land uses that are occupied by these population groups, such as residences, hospitals and schools, are considered to be air quality-sensitive land uses. The Project Site is primarily surrounded by civic and commercial uses, although there are also air quality-sensitive land uses within approximately 500 feet of the Project Site, as shown in **Figure IV.B-2, Sensitive Receptor Locations Nearest to the Project Site**. Air quality sensitive land uses nearest to the Project Site include the following:

1. A seven-story mixed-use multi-family development is located adjacent to the Project Site to the north (1001 S. Olive Street; Oakwood Olympic & Olive project).
2. A seven-story mixed-use multi-family development is located adjacent to the Project Site to the northwest (1000 S. Grand Avenue; By Windsor project).
3. A 20-story mixed-use multi-family high-rise building is located to the west of the Project Site (1050 S. Grand Avenue; Ten50 project).
4. Three mixed-use multi-family developments are located at the southwest corner of W. 11th Street and S. Grand Avenue (1155 S. Grand Avenue, 1111 S. Grand Avenue, 1100 S. Hope Street).
5. A thirteen-story multi-family development is located to the southwest of the Project Site (1100 S. Grand Avenue; Grand Lofts condominiums).

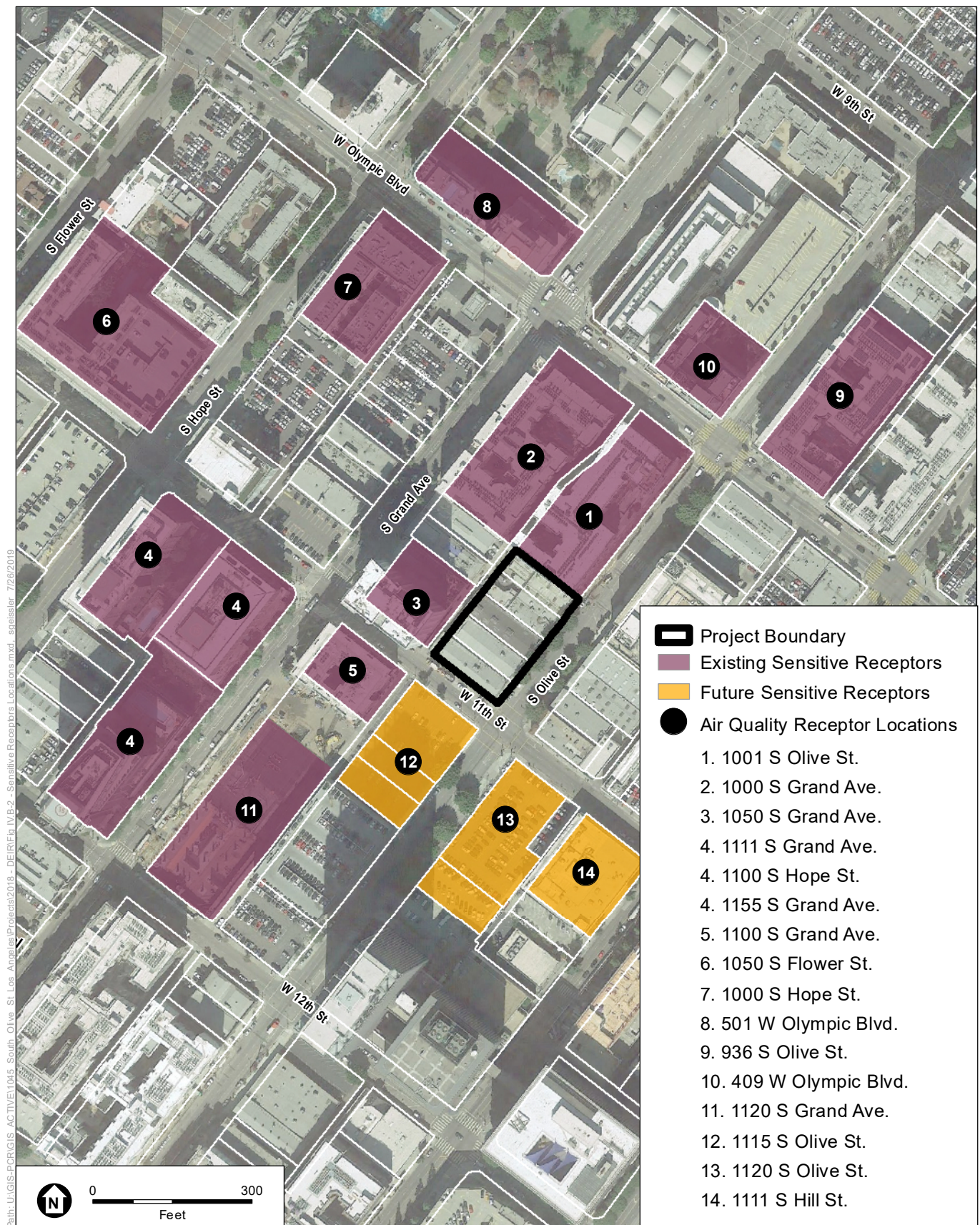
6. Mixed-use multi-family developments are located at the northwest corner of W. 11th Street and S. Hope Street (1050 S. Flower Street).
7. A six-story mixed-use multi-family development is located at the southeast corner of W. Olympic Boulevard and S. Hope Street (1000 S. Hope Street; Packard Lofts).
8. Mixed-use multi-family developments are located at the northwest corner of W. Olympic Boulevard and S. Grand Avenue (501 W. Olympic Boulevard).
9. Mixed-use multi-family developments are located at the northeast corner of W. Olympic Boulevard and S. Olive Street (936 S. Olive Street).
10. A multi-family development is located at the northwest corner of W. Olympic Boulevard and S. Olive Street (409 W. Olympic Boulevard; Reserve Lofts).
11. A mixed-use residential development is located at the northwest corner of W. 12th Street and Margo Street (1120 S. Grand Avenue).

All other existing air quality-sensitive uses are located at greater distances from the Project Site and would experience lower air pollutant impacts from potential sources of pollutants from the Project Site due to atmospheric dispersion effects.

(e) Future Sensitive Receptors and Locations (Sensitive Receptors Not Built Yet)

Beyond the existing development that could potentially be impacted by Project construction, there are three future projects in the nearby vicinity of the Project Site that are not part of the existing setting, and thus part of the baseline for determining the Project's potential impacts, but that could be impacted should they be constructed and occupied prior to the construction of the Project. For informational purposes, future sensitive land uses in close proximity to the Project Site are also shown in Figure IV.B-2, and include the following:

12. The DTLA South Park Project (Mack Urban Site 3) will be constructed at the southwest corner of W. 11th Street and S. Olive Street (1115 S. Olive Street).
13. The DTLA South Park Project (Mack Urban Site 2) will be constructed at the southeast corner of W. 11th Street and S. Olive Street (1120 S. Olive Street).
14. A 53-story mixed-use multi-family development will be constructed at the southwest corner of W. 11th Street and S. Hill Street (1111 S. Hill Street; 11th and Hill Tower).



SOURCE: Google Earth, 2016.

1045 Olive Project

Figure IV.B-2
Sensitive Receptor Locations Nearest to the Project Site

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to air quality in this section, the City has determined to use Appendix G of the State CEQA Guidelines as its thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with the State CEQA Guidelines Appendix G, the Project would have a significant impact related to Air Quality if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;***
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;***
- c) Expose sensitive receptors to substantial pollutant concentrations; or***
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.***

The L.A. CEQA Thresholds Guide identifies the following factors for consideration on a case-by-case basis to evaluate air quality impacts:

- Combustion Emissions from Construction Equipment
 - Type, number of pieces and usage for each type of construction equipment;
 - Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
 - Emission factors for each type of equipment.
- Fugitive Dust: Grading, Excavation and Hauling
 - Amount of soil to be disturbed on-site or moved off-site;
 - Emission factors for disturbed soil;
 - Duration of grading, excavation and hauling activities;
 - Type and number of pieces of equipment to be used; and
 - Projected haul route.
- Fugitive Dust: Heavy-Duty Equipment Travel on Unpaved Roads
 - Length and type of road;
 - Type, number of pieces, weight and usage of equipment; and
 - Type of soil.

- Other Mobile Source Emissions
 - Number and average length of construction worker trips to project site, per day; and
 - Duration of construction activities.

While these factors are important inputs in determining the amounts and nature of air pollution emissions generated by a project during construction, construction air quality emissions are evaluated in consideration of the criteria set forth by the SCAQMD. Pursuant to the State *CEQA Guidelines* (Section 15064.7), a lead agency may consider using, when available, significance thresholds established by the applicable air quality management district or air pollution control district when making determinations of significance. For purposes of this analysis, the City has determined to assess the potential air quality impacts of the Project in accordance with the most recent thresholds adopted by the SCAQMD in connection with its *CEQA Air Quality Handbook*, *Air Quality Analysis Guidance Handbook*, and subsequent SCAQMD guidance, as discussed below, and this assessment satisfies the considerations raised in the *Thresholds Guide*.¹⁰⁴

Consistency with Applicable Air Quality Plans. Section 15125 of the State CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD's CEQA Air Quality Handbook, the following criteria were used to evaluate the Project's consistency with the SCAQMD's 2016 AQMP and the City's General Plan Air Quality Element:

- Criterion 1: Will 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.
- Criterion 2: Will the Project exceed the assumptions utilized in preparing the AQMP?

The Project's potential impacts with respect to these criteria are discussed to assess the consistency with the SCAQMD's 2016 AQMP and applicable City General Plan Air Quality Element plans and policies.

Construction and Operational Emission Air Quality Standards. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Air Basin is currently in non-attainment for ozone, PM₁₀, and PM_{2.5}. SCAQMD methodology recommends that significance thresholds be

¹⁰⁴ While the South Coast Air Quality Management District CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the significance thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial land use projects such as the Project. As a result, lead emissions are not further evaluated in this Draft EIR.

used to determine the potential cumulative impacts to regional air quality along with a project's consistency with the current AQMP.

The SCAQMD has established numerical significance thresholds for construction and operational activities. The numerical thresholds are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health.¹⁰⁵ Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established numerical significance thresholds specific to construction activity. Based on the thresholds in the SCAQMD *CEQA Air Quality Handbook*,¹⁰⁶ the Project would potentially result in a significant impact of a federal or state non-attainment pollutant if emissions of ozone precursors (VOC and NO_x), PM₁₀, or PM_{2.5} would exceed the values shown in **Table IV.B-5, SCAQMD Regional Emissions Thresholds**.

TABLE IV.B-5
SCAQMD REGIONAL EMISSIONS THRESHOLDS (POUNDS PER DAY)

Activity	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Construction	75	100	550	150	150	55
Operations	55	55	550	150	150	55

SOURCE: South Coast Air Quality Management District, Air Quality Significance Thresholds, 2015.

Localized Emission Impacts on Sensitive Receptors. In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards or ambient concentration limits. Impacts would be considered significant if the following would occur:

- Maximum daily localized emissions of NO_x and/or CO during construction or operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for NO₂ and/or CO.¹⁰⁷
- Maximum daily localized emissions of PM₁₀ and/or PM_{2.5} during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed 10.4 µg/m³ over 24 hours (SCAQMD Rule 403 control requirement).

¹⁰⁵ South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.

¹⁰⁶ South Coast Air Quality Management District, Air Quality Significance Thresholds, 2015, <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>. Accessed March 2018.

¹⁰⁷ South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, 2008.

- Maximum daily localized emissions of PM₁₀ and/or PM_{2.5} during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed 2.5 µg/m³ over 24 hours (SCAQMD Rule 1303 allowable change in concentration).
- The following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:
 - The Project would cause or contribute to an exceedance of the CAAQS 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively.
 - Where the CO standard is exceeded at the intersection, a project would result in a significant impact if the incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.

The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling.¹⁰⁸ This analysis uses the screening criteria to evaluate impacts from localized emissions where applicable.

Toxic Air Contaminants and Sensitive Receptors. Based on the SCAQMD thresholds, the Project would cause a significant impact by exposing sensitive receptors to toxic air contaminants if any of the following would occur:¹⁰⁹

- The Project emits carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic hazard index of 1.0.

Objectionable Odors and Other Emissions. With respect to other emissions, such as odors, the Project would be considered significant if it created objectionable odors affecting a substantial number of people. In addition, based on the thresholds in the SCAQMD *CEQA Air Quality Handbook*,¹¹⁰ the Project would potentially result in a significant impact of an attainment, maintenance, or unclassified pollutant if emissions of CO or SO₂ would exceed the values shown in Table IV.B-5.

¹⁰⁸ South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, 2008.

¹⁰⁹ South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.

¹¹⁰ South Coast Air Quality Management District, Air Quality Significance Thresholds, 2015.

b) Methodology

The evaluation of potential impacts to regional and local air quality that may result from the construction and long-term operations of the Project is discussed below. Additional details are provided in the *Air Quality Technical Appendix* in Appendix C of this Draft EIR.

(1) Consistency with General Plan – Air Quality Element

As discussed previously, the City's General Plan Air Quality Element includes Citywide goals, objectives, and policies that guide the City in the implementation of its air quality improvement programs and strategies. Goals, objectives, and policies of the Air Quality Element relevant to the Project include minimizing traffic congestion and increasing energy efficiency, as well as reducing air pollutant emissions consistent with the AQMP. The analysis below provides a side-by-side comparison of each of the relevant provisions in the Air Quality Element with the Project to determine whether the Project would be consistent with those provisions.

(2) Consistency with Air Quality Management Plan

The SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., ozone and PM_{2.5}).¹¹¹ The SCAQMD's 2016 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving five NAAQS related to these pollutants, including transportation control strategies from SCAG's 2016 RTP/SCS designed to focus growth near High Quality Transit Areas (HQTAs) and to reduce VMT.¹¹² The 2016 AQMP control strategies were developed, in part, based on regional growth projections prepared by SCAG.¹¹³ As the AQMP control strategy is based on projections from local General Plans, projects which are consistent with local General Plans are considered consistent with the growth assumptions of the air quality related regional plans and their emissions are assumed to be accounted for in the AQMP emissions inventory. Projects which include amendments to General or Specific Plans, or are considered significant projects, undergo further scrutiny for AQMP consistency. As noted above, the 2016 AQMP has been adopted by the SCAQMD and CARB. Therefore, this analysis considers the Project's consistency with the 2016 AQMP. The Project's consistency with the 2016

¹¹¹ The Los Angeles County portion of the Air Basin is designated as nonattainment for the federal lead standard; however, this was due to localized emissions from two lead-acid battery recycling facilities in the City of Vernon and the City of Industry that are no longer operating. For reference see South Coast Air Quality Management District, Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012.

¹¹² South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page ES-6, 4-42. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

¹¹³ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42 to 4-44. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

AQMP is evaluated based on consistency with its applicable growth projections and emission control strategies.

(3) Existing Project Site Emissions

Existing operational emissions were estimated using CalEEMod, as described above. For mobile sources, the vehicle trips and VMT were obtained for the existing uses from the transportation study¹¹⁴ and supplemental VMT conversion data is provided in Appendix C of this Draft EIR. Emission factors were obtained from EMFAC2017, which was run in the emissions mode (also referred to as the “Burden” mode) and used to generate Air Basin-specific vehicle fleet emission factors in units of grams or metric tons per mile. Mobile source emissions are the product of the estimated VMT and the EMFAC2017 emission factors.

Emissions from on-site natural gas combustion were based on usage data from the CEC’s *California Commercial End Use Survey* (CEUS), which lists energy demand by building type.¹¹⁵ Since 1978, the CEC has established building energy efficiency standards, which are updated periodically. The CEUS provides data on a limited statewide basis for different climate zones. Because CalEEMod applies correction factors to account for compliance with recent updates to the Title 24 Building Energy Efficiency Standards, energy demand is adjusted to account for assumed compliance with older Title 24 Building Energy Efficiency Standards, based on available conversion data.¹¹⁶

Other sources of emissions from existing uses include fugitive VOC emissions based on consumer product usage factors provided by the SCAQMD within CalEEMod and architectural coating emission factors based on SCAQMD Rule 1113.

(4) Construction Emissions

Construction air quality impacts were assessed based on the incremental increase in emissions compared to baseline conditions. Under CEQA, the baseline environmental setting for an EIR is generally established at or around the time that the Notice of Preparation (NOP) for the EIR is published. As discussed previously, the Project Site currently contains five commercial buildings totaling 35,651 square feet and an approximately 5,952 square-foot paved parking and hardscape area, for a total of 41,603 square feet. These existing uses would be demolished and removed to allow for development of the Project. Nonetheless, the Project’s construction emissions do not take credit for removal of the existing emissions associated with the existing uses on the

¹¹⁴ The Mobility Group, 1045 Olive Project Transportation Study, June 2019. Provided in Appendix N of this Draft EIR.

¹¹⁵ California Energy Commission, California Commercial End-Use Survey, <http://capabilities.itron.com/CeusWeb/Chart.aspx>. Accessed June 2018.

¹¹⁶ California Air Resources Board, CalEEMod User’s Guide, Appendix E-5, September 2016, http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/06_appendix-e2016-3-1.pdf?sfvrsn=2. Accessed June 2018. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

Project Site. Localized air quality impacts are also evaluated based on the Project's emissions without netting of existing Project Site emissions.

Project construction activities that would have the potential to create regional air quality impacts include vehicle trips generated by construction workers, vendor trucks, and haul trucks traveling to and from the Project Site and building activities such as the application of paint and other surface coatings. The Project's daily regional criteria pollutant emissions during construction have been estimated by assuming a conservative scenario for construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions have been estimated using the CalEEMod software, an emissions inventory software program recommended by the SCAQMD. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. Haul truck trip estimates were based on excavation volumes obtained from the Applicant and 14 cubic yards soil capacity haul trucks; cement truck trip estimates were based on mat foundation volumes obtained from the Applicant and 10 cubic yards concrete capacity concrete trucks; worker trip estimates were provided by the Applicant; and vendor truck trip estimates were based on calculation methodologies in CalEEMod. CalEEMod is based on outputs from the CARB off-road emissions factor (OFFROAD) and on-road EMFAC models, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. These values were applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Construction phasing would include demolition of the existing buildings and associated parking, site clearing, grading, excavation, subterranean parking and building construction. The Project would export approximately 80,520 cubic yards of soil and generate approximately 3,410 cubic yards of demolition debris that would need to be hauled away (asphalt, interior and exterior building demolition, and general construction debris). Emissions from these activities were estimated by construction phase. The maximum daily emissions were predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum net daily emissions were compared to SCAQMD daily regional numeric indicators. A detailed discussion of the Project's construction phasing and equipment list is available in the *Air Quality Technical Appendix* for the Project, which is provided in Appendix C of this Draft EIR.¹¹⁷

Project construction activities that would have the potential to create local air quality impacts include on-site fugitive dust from grading and demolition and on-site exhaust emissions from stationary and mobile fossil fuel-powered construction equipment. The

¹¹⁷ Impacts from asbestos and lead-based paint from Project demolition are expected to be less than significant and less than significant after implementation of mitigation measures, respectively. For additional details please refer to Section IV.G, Hazards and Hazardous Materials of this Draft EIR.

localized effects from the on-site portion of the Project's construction emissions were evaluated at the nearby sensitive receptor locations that would be potentially impacted by Project construction in accordance with the SCAQMD's *Final Localized Significance Threshold Methodology* (June 2003, revised July 2008).¹¹⁸ The localized significance thresholds only address NO_x, CO, PM₁₀, and PM_{2.5} emissions. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without the need for Project-specific dispersion modeling. The localized analysis for the Project is based on this SCAQMD screening criteria. The Project Site is located in the Central Los Angeles area and is approximately 0.96 acres in size, with the nearest off-site receptors located adjacent to the Project Site to the west along West 11th Street and north along South Olive Street. Therefore, the screening criteria used were a 1-acre site in the Central Los Angeles area with sensitive receptors located 25 meters away, which accounts for all adjacent off-site sensitive receptors.¹¹⁹ The maximum net daily emissions from construction of the Project were compared to these screening criteria.

Project construction is estimated to start in 2019, but may commence at a later date. If this occurs, construction impacts would be lower than those analyzed here due to the use of a more energy-efficient and cleaner burning construction vehicle fleet mix, pursuant to State regulations that require vehicle fleet operators to phase-in less polluting heavy-duty equipment. As a result, should Project construction commence at a later date than analyzed in this Draft EIR, air quality impacts would be lower than the impacts disclosed herein.

(5) Operational Emissions

The Project's operational emissions were estimated using the CalEEMod software. CalEEMod was used to forecast the daily regional criteria pollutant emissions from on-site area and stationary sources that would occur during long-term Project operations. For mobile sources, the estimated vehicle trips and VMT were provided for the Project uses in the Transportation Study that was prepared for the Project's Environmental Leadership Development Project (ELDP) analysis pursuant to AB 900, which was based on CalEEMod VMT factors¹²⁰ and supplemental VMT conversion data are provided in Appendix C of this Draft EIR. The EMFAC2017 model was run in the emissions mode (also referred to as the "Burden" mode) and used to generate Air Basin-specific vehicle fleet emission factors in units of grams or metric tons per mile. These emission factors were then applied to the daily VMT to obtain daily mobile source emissions.

¹¹⁸ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, (2008), <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>. Accessed June 2018.

¹¹⁹ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, p. 3-3, (2008). "Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters."

¹²⁰ The Mobility Group, 1045 Olive Project Transportation Study, June 2019. Provided in Appendix N of this Draft EIR.

Section IV.M, *Transportation and Traffic*, of this Draft EIR, also includes a VMT analysis based upon the City's recently adopted VMT Calculator that has been developed to measure VMT in a manner that is consistent with State CEQA Guidelines Section 15064.3. This analysis differs from the Project's ELDP analysis pursuant to AB 900. The VMT analysis using the recently adopted City methodology, which is included in Section IV.M, *Transportation and Traffic*, and Appendix N-4, *VMT Analysis, 2019*, of this Draft EIR, results in lower VMT than the VMT values in the ELDP analysis. As a conservative approach, the VMT values from the ELDP analysis, which are greater in amount, are used in this Draft EIR for evaluating operational mobile source air quality, greenhouse gas, and energy impacts.

Emissions would result from area sources located on-site such as natural gas combustion from water heaters, boilers, and cooking stoves, landscaping equipment, and use of consumer products. The Project is not expected to contain any large stationary combustion equipment such as large boilers or combustion turbines. Natural gas usage factors in CalEEMod are based on the CEC 2002 CEUS data adjusted to reflect more recent Title 24 improvements.

Stationary sources would include on-site emergency generator capacity, estimated at approximately 708 kilowatts (950 horsepower). The emergency generator would result in emissions during maintenance and testing operations. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470. Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470. For the purposes of estimating maximum daily emissions, it is estimated that the emergency generators would operate for up to two hours in a day for maintenance and testing purposes.

Operational air quality impacts were assessed based on the incremental increase in emissions compared to baseline conditions. Under CEQA, the baseline environmental setting for an EIR is generally established at or around the time that the NOP for the EIR is published. As discussed previously, the Project Site currently contains five commercial buildings totaling 35,651 square feet and an approximately 5,952 square-foot paved parking and hardscape area, for a total of 41,603 square feet. These existing uses would be demolished and removed to allow for development of the Project. Therefore, the net change in operational emissions is based on the difference between the existing Project Site emissions and the emissions of the Project Site at full buildout. The maximum daily net emissions from operation of the Project are compared to the SCAQMD daily regional numeric indicators.

The localized effects from the on-site portion of the maximum daily net emissions from Project operation were evaluated at the nearby sensitive receptor locations that would be potentially impacted by operation of the Project according to the SCAQMD's *Final*

Localized Significance Threshold Methodology (June 2003, revised July 2008).¹²¹ The localized impacts from operation of the Project were assessed similar to the construction emissions, as discussed previously. For further explanation, please see Appendix C of this Draft EIR.

The greatest quantities of CO are produced from motor vehicle combustion and are usually concentrated at or near ground level because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. Localized areas where ambient concentrations exceed State and/or federal standards are termed “CO hotspots.” The potential for the Project to cause or contribute to the formation of off-site CO hotspots was evaluated based on prior dispersion modeling of the four busiest intersections in the Air Basin that the SCAQMD conducted for its CO Attainment Demonstration Plan in the AQMP. The analysis compares the intersections with the greatest peak-hour traffic volumes that would be impacted by the Project to the intersections modeled by the SCAQMD. Project-impacted intersections with peak-hour traffic volumes that would be lower than the intersections modeled by the SCAQMD, in conjunction with lower background CO levels, would result in lower overall CO concentrations as compared to the SCAQMD-modeled values to maintain attainment status in its AQMP.

(6) Toxic Air Contaminant Impacts (Construction and Operations)

The greatest potential for TAC emissions during construction would be related to DPM emissions associated with heavy-duty equipment during excavation and grading activities. Construction activities associated with the Project would be sporadic, transitory, and short-term in nature (approximately 42 months). The SCAQMD has not adopted guidance that requires that quantitative health risk assessments be performed for short-term exposures to TAC emissions. The SCAQMD also has not adopted guidance that establishes a methodology or that requires Lead Agencies to use the 2015 OEHHA guidance manual when assessing short-term TAC exposures from construction emissions for CEQA analyses. Specifically, the SCAQMD states that “SCAQMD currently does not have guidance on construction Health Risk Assessments” and does not apply the 2015 OEHHA update to construction.¹²² Therefore, the City is continuing to assess potential impacts from short-term TAC exposures in accordance with the methodology supported by the SCAQMD prior to the 2015 OEHHA update. Thus, a qualitative

¹²¹ South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, 2008, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>. Accessed June 2018.

¹²² South Coast Air Quality Management District, Final Environmental Assessment for: Proposed Amended Rule 307.1 – Alternative Fees for Air Toxics Emissions Inventory; Proposed Amended Rule 1401 – New Source Review of Toxic Air Contaminants; Proposed Amended Rule 1402 – Control of Toxic Air Contaminants from Existing Sources; SCAQMD Public Notification Procedures for Facilities Under the Air Toxics “Hot Spots” Information and Assessment Act (AB 2588) and Rule 1402; and, SCAQMD Guidelines for Participating in the Rule 1402 Voluntary Risk, page 2-23, September 2016, http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/final-ea_par-307-1_1401_1402.pdf?sfvrsn=4. Accessed August 23, 2018.

assessment of the impacts associated with the Project's short-term construction TAC emissions is provided in the analysis section below.

During long-term operations, TACs could be emitted as part of periodic maintenance operations, periodic testing and maintenance of the emergency generator, restaurant charbroiling, from routine cleaning, from periodic painting, etc., and from periodic visits from delivery trucks and service vehicles. However, these events are expected to be occasional and result in minimal emissions exposure to off-site sensitive receptors. As the Project consists of residential and commercial/restaurant uses, the Project would not include sources of substantial TAC emissions identified by the SCAQMD or CARB siting recommendations.^{123, 124} Thus, a qualitative analysis is appropriate for assessing the Project's operational emissions. The siting of the Project itself in relation to off-site sources of TACs is not germane to the assessment of the Project's air quality impacts; however, this is addressed under land use compatibility for the surrounding area in Section IV.I, *Land Use and Planning*, of this Draft EIR.

c) Project Characteristics

The Project is an urban "infill" project, as it would replace existing commercial uses on underutilized parcels located in Downtown Los Angeles with a high-density, mixed-use development. The Project proposes higher density, consistent with compact growth, on a parcel of infill urban land accessible to and well served by public transit including frequent and comprehensive transit services. The Project's new housing and job growth would be located in a HQTAs, which SCAG defines as an area within a half mile of a well-served transit stop,¹²⁵ and a Transit Priority Area (TPA), which the City defines as an area within one-half mile of a major transit stop that is existing or planned.¹²⁶ As discussed in Subsection 3.d)(1)(b)(i), *Control Strategies and Policy Consistency*, below, the Project's Urban location setting and its land use characteristics, as identified by the California Air Pollution Control Officers Association (CAPCOA), of Increased Density, Location Efficiency, Increased Land Use Diversity and Mixed-Uses, Increased Destination Accessibility, Increased Transit Accessibility, Improve Design of Development, and Provide Pedestrian Network Improvements demonstrate that the Project developed at the Project Site would result in reduced vehicle trips, VMT, and associated transportation-related GHG emissions, as well as air pollutant emissions, compared to the statewide

¹²³ South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, 2005, Table 2-3, <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4>. Accessed October, 2017.

¹²⁴ California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, 2005, Table 1-1, <https://www.arb.ca.gov/ch/landuse.htm>. Accessed October, 2017.

¹²⁵ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016, page 8, <http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

¹²⁶ City of Los Angeles, Department of City Planning, Zoning Information File ZI NO. 2451 Transit Priority Areas (TPAs)/Exemptions to Aesthetics and Parking within TPAs Pursuant to CEQA, <https://files.alston.com/files/docs/ZI%202451-TPA-Aesthetics-and-Parking.pdf>. Accessed October 2018.

and Air Basin averages for land use development vehicle trips, VMT, and associated emissions.

The following Project Design Features (PDFs) would be incorporated into the Project, which would incorporate sustainability features for reduced energy consumption, which reduces building energy-related air pollutant emissions (i.e., natural gas combustion and electricity for heating and cooling), and would also include measures to encourage the use of lower emitting plug-in hybrid electric or zero-emissions electric vehicles, therefore resulting in fewer emissions as part of the Project:

AQ-PDF-1: Green Building Features: The Project will be designed to achieve the equivalent of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification level for new buildings. The Project will demonstrate compliance with the LEED Gold Certification or equivalent by providing architectural and engineering documentation, building energy modeling simulations, and other supporting evidence consistent with USGBC accepted documentation standards. Pre-construction documentation that indicates the Project is designed to achieve the number of points required for LEED Gold Certification will be provided to the City prior to building permit issuance. Post-construction documentation that indicates the Project operates within the expected parameters to achieve the number of points required for LEED Gold Certification will be provided to the City after completion of commissioning activities. A summary of key green building and LEED measures are provided below:

- The Project will implement a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris.
- The Project will incorporate heat island reduction strategies for 50 percent of the site hardscapes or provide 100 percent structured parking and incorporate heat island reduction strategies, including but not limited to high-reflectance and vegetated roofs, for the Project roof areas.
- The Project shall include at least twenty (20) percent of the total code required parking spaces provided for all types of parking facilities, but in no case less than one location, 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 ampacity. Of the 20 percent EV Ready, five (5) percent of the total code required parking spaces shall be further provided with EV chargers to immediately accommodate electric vehicles within the parking areas. When the application of either the 20 percent or 5 percent results in a fractional space, round up to the next whole number. A

label stating “EVCAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.

- The Project will optimize building energy performance including, but not limited to, installing energy efficient appliances.
- The Project will reduce water consumption by 40 percent for indoor water and 50 percent for outdoor water compared to baseline water consumption. Water reduction strategies include, but are not limited to planting drought-tolerant/California native plant species, increasing irrigation system efficiency, incorporating alternative water supplies (e.g., stormwater retention for use in landscaping), and/or installing smart irrigation systems (e.g., weather-based controls).
- The Project will provide on-site recycling areas with containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers.
- The residential units within the Project will not include the use of natural gas-fueled fireplaces.

AQ-PDF-2: Construction Equipment Features: The Applicant will implement the following construction equipment features for equipment operating at the Project Site. These features will be included in applicable bid documents, and successful contractor(s) must demonstrate the ability to supply such equipment. Construction features will include the following:

- During plan check, the Project representative will make available to the lead agency and SCAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used during any of the construction phases. The inventory will include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each such unit’s certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided on-site at the time of mobilization of each applicable unit of equipment to allow the Construction Monitor to compare the on-site equipment with the inventory and certified Tier specification and operating permit. Off-road diesel-powered equipment that will be used an aggregate of 40 or more hours during any portion of the construction activities associated with grading/excavation/export phase must meet the Tier 4 Final standards. Construction contractors supplying heavy duty diesel equipment greater than 50 horsepower will be encouraged to apply for SCAQMD SOON funds. Information including the SCAQMD website will be provided to each contractor which uses heavy duty diesel for on-site construction activities.
- Equipment such as tower cranes and signal boards must be electric or alternative-fueled (i.e., non-diesel). Pole power will be made available for use for electric tools, equipment, lighting, etc. Construction equipment such as

tower cranes and signal boards must utilize electricity from power poles or alternative fuels (i.e., non-diesel), rather than diesel power generators and/or gasoline power generators. If stationary construction equipment, such as diesel- or gasoline-powered generators, must be operated continuously, such equipment must be located at least 100 feet from sensitive land uses (e.g., residences, schools, childcare centers, hospitals, parks, or similar uses), whenever possible.

- Alternative-fueled generators (e.g., natural gas, battery electric, solar, etc.) that generate less NO_x and particulate matter emissions when compared to equivalent diesel-fueled models will be used when commercial models that have the power supply requirements to meet the construction needs of the Project are commercially available from local suppliers/vendors. The determination of the commercial availability of such equipment will be made by the City prior to the issuance of grading or building permits based on applicant-provided evidence of the availability or unavailability of alternative-fueled generators and/or evidence obtained by the City from expert sources such as construction contractors in the region.
- Alternative-fueled sweepers/scrubbers shall be used pursuant to SCAQMD Rule 1186.1.¹²⁷
- Contractors will maintain and operate construction equipment so as to minimize exhaust emissions. All construction equipment must be properly tuned and maintained in accordance with the manufacturer's specifications. The contractor must keep documentation on-site demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications. Tampering with construction equipment to increase horsepower or to defeat emission control devices must be prohibited.
- Construction activities must be discontinued during second-stage smog alerts. A record of any second-stage smog alerts and of discontinued construction activities as applicable will be maintained by the Contractor on-site.

d) Analysis of Project Impacts

Threshold a) *Would the Project conflict with or obstruct the implementation of the applicable air quality plan? Less than Significant.*

(1) Air Quality Management Plan Consistency

As discussed above, the SCAQMD has adopted a series of AQMPs to lead the Air Basin into compliance with several criteria pollutant standards and other federal requirements.

¹²⁷ South Coast Air Quality Management District, Rule 1186.1, Less-Polluting Sweepers, 2009. <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1186-1-less-polluting-sweepers.pdf>, Accessed

The 2016 AQMP relied on emissions forecasts based on the demographic and economic growth projections provided by SCAG's 2016-2040 RTP/SCS in devising its control strategies for reducing emissions of O₃ and PM_{2.5} to meet five NAAQS standards.¹²⁸ SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies."¹²⁹ The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, the lead agency assess whether the project would directly obstruct implementation of the plan by impeding the SCAQMD's efforts to achieve attainment with respect to any criteria pollutant for which it is currently not in attainment of the NAAQS and CAAQS (e.g., O₃, PM₁₀, and PM_{2.5}) and whether it is consistent with the demographic and economic assumptions (typically land use related, such as employment and population/residential units) upon which the plan is based.¹³⁰ Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and not to interfere with its attainment.¹³¹

The Project would not obstruct implementation of the 2016 AQMP for, as discussed below, its construction and operational emissions would be less than significant with implementation of feasible mitigation measures (discussed further below under Subsection 3.f), *Mitigation Measures*). The Project would comply with applicable required fleet rules and control strategies to reduce on-road truck emissions (i.e., 13 CCR, Section 2025 [CARB Truck and Bus regulation]), and other applicable SCAQMD rules specified and incorporated in the 2016 AQMP. As discussed under Methodology, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP. As discussed below, the Project's compliance with the applicable required fleet rules and control strategies and requirements would render it consistent with, and meet or exceed, the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Thus, the Project's criteria pollutant emissions would not cause the Air Basin's criteria pollutant emissions to worsen so as to impede the SCAQMD's efforts to achieve attainment with respect to any criteria pollutant for which it is currently not in attainment of the NAAQS

¹²⁸ South Coast Air Quality Management District, 2016 Air Quality Management Plan, 2017, pages ES-6, 3-1, 3-3, 3-10, 3-17, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>. Accessed June 2018.

¹²⁹ South Coast Air Quality Management District, 2016 Air Quality Management Plan, 2017, page 4-42, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>. Accessed June 2018.

¹³⁰ South Coast Air Quality Management District, Air Quality Analysis Handbook, 1993, pages 12-2, 12-3, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>. Accessed June 2018.

¹³¹ South Coast Air Quality Management District, CEQA Air Quality Handbook (1993), page 12-1, [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). Accessed June 2018.

and CAAQS (e.g., O₃, PM₁₀, and PM_{2.5}),¹³² or to cause the Air Basin to deteriorate from its current attainment status with respect to any other criteria pollutant emissions.

The Project is also affirmatively consistent with the 2016 AQMP. The Project has incorporated into its design appropriate control strategies set forth in the 2016 AQMP for achieving its emission reduction goals, as described below, and the Project is also consistent with the demographic and economic assumptions upon which the plan is based.

(a) *Construction*

(i) *Control Strategies*

During its construction phase, the Project would ensure compliance with CARB's requirements to minimize short-term emissions from on-road and off-road diesel equipment, and with SCAQMD's regulations such as Rule 403 for controlling fugitive dust and Rule 1113 for controlling VOC emissions from architectural coatings. Furthermore, the Project would comply with fleet rules to reduce on-road truck emissions (i.e., 13 CCR, Section 2025 (CARB Truck and Bus regulation)). The Project would not conflict with implementation of construction-related AQMP control strategies. As discussed above in Subsection 2.b)(3)(a)(i), *Air Quality Management Plan*, the 2016 AQMP includes control strategies MOB-8 and MOB-10, which encourage the use of less polluting heavy-duty trucks and construction equipment. Consistent with these strategies, construction contractors in California are required by CARB to comply with on-road and off-road vehicle and equipment regulations to reduce NO_x and particulate matter emissions (13 CCR, Section 2025 and 13 CCR, Section 2449). The Project will also implement AQ-PDF-2, which requires the use of construction equipment that meet the stringent Tier 4 Final emissions standards as well as electric-powered and alternative-fueled generators if commercially available. As described further below, the Project would result in less than significant criteria air pollutant emission impacts after mitigation, as discussed further below in Subsection 3.f), *Mitigation Measures*. With mitigation, construction of the Project would not exceed the SCAQMD numeric significance thresholds and would not result in a significant impact with respect to air quality. Compliance with the above control strategies, regulatory requirements, and mitigation measures would be consistent with and meet or exceed the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities.

(ii) *Growth Projections*

The Project would generate short-term construction jobs, but these jobs would not necessarily bring new construction workers or their families into the region, since construction workers are typically drawn from an existing regional pool of construction

¹³² The Los Angeles County portion of the Air Basin is designated as nonattainment for the federal lead standard; however, this was due to localized emissions from two lead-acid battery recycling facilities in the City of Vernon and the City of Industry that are no longer operating. For reference see South Coast Air Quality Management District, Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012.

workers who travel among construction sites within the region as individual projects are completed, and are not typically brought from other regions to work on developments such as the Project. Moreover, these jobs would be relatively small in number and temporary in nature. Therefore, the Project's construction jobs would not conflict with the long-term employment or population projections upon which the 2016 AQMP is based.

(b) *Operations*

(i) *Control Strategies and Policy Consistency*

As described further below, the Project would result in less than significant criteria air pollutant emission impacts as Project operation would not exceed the SCAQMD numeric significance thresholds. As such, operation of the Project would not result in a significant impact with respect to air quality.

The Project's location, design and land uses also render it consistent with the 2016 AQMP during operations. As discussed above, the 2016 AQMP includes transportation control strategies from the 2016-2040 RTP/SCS that are intended to reduce VMT and resulting regional mobile source emissions. The majority of these strategies are to be implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, although some can be furthered by individual development projects.

The Project's location, design, and land uses would support land use and transportation control strategies related to reducing vehicle trips for residents, patrons and employees by increasing residential and commercial density near public transit. The Project is considered an "urban infill" project, as it would replace existing commercial uses with a high-density, mixed-use development, within an already heavily urbanized part of the Los Angeles Downtown area. The Project proposes higher density, consistent with compact growth principles, on a parcel of infill urban land accessible to and well served by public transit including frequent and comprehensive transit services. New housing and job growth, as a result of the completed project, is focused in a HQTAs, which SCAG defines as an area within a half mile of a well-served transit stop. The Project's urban location setting and its land use characteristics are analyzed below using the methodology used by CAPCOA in its guidance document entitled *Quantifying Greenhouse Gas Mitigation Measures*, to demonstrate that the Project would result in reduced VMT, and reduced associated transportation-related air pollutant emissions, as compared to the Statewide and Air Basin averages for land use development vehicle trips, VMT, and associated emissions. This analysis provides evidence of the Project's consistency with the 2016 AQMP's goal of reducing mobile source emissions as a source of NO_x and PM_{2.5}.

CAPCOA has provided guidance on mitigating or reducing emissions from land use development projects in its guidance document entitled *Quantifying Greenhouse Gas*

Mitigation Measures, which provides emission reduction values for recommended air pollutant reduction strategies.¹³³

The land use characteristics of the Project listed below are consistent with those shown in the CAPCOA guidance document to reduce vehicle trips to and from the Project Site as compared to the Statewide and Air Basin averages for land use development vehicle trips, VMT, and associated emissions. They would, therefore, result in corresponding reductions in VMT and associated air pollutant and GHG emissions. The reduction in VMT from these land use characteristics is estimated in accordance with the CAPCOA methodologies. Detailed VMT reduction calculations using the CAPCOA methodologies are provided in Appendix G of this Draft EIR. Based on the results of these calculations, the Project would achieve an approximately 36 percent reduction in VMT from the land use characteristics discussed below. However, for the purposes of comparison, it should be noted that the emissions estimate for the Project's mobile sources used a VMT reduction, drawn from the Project's Transportation Study,¹³⁴ of approximately 35 percent (an approximately 26 percent reduction in annual combustion air pollutant emissions, accounting for weekend adjustments per CalEEMod), which is a conservative estimate as it is less than the reduction estimated in accordance with the CAPCOA methodologies.

- Increased Density:** Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies such as enhanced transit services. This characteristic corresponds to CAPCOA guidance strategy LUT-1.¹³⁵ According to CAPCOA, the reduction in VMT from this characteristic applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill¹³⁶ location and is a mixed-use development; therefore, this characteristic applies to the Project. The Project would increase the Project Site density to approximately 827 dwelling units per acre (794 dwelling units on 0.96 acres) (refer to Section IV.K, *Population and Housing*, of this Draft EIR). This land use characteristic is included as a land use strategy in SCAG's 2016-2040 RTP/SCS for

¹³³ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010), <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹³⁴ The Mobility Group, 1045 S Olive Project – Transportation Study, June 2019. This document is provided at the end of Appendix N of this Draft EIR.

¹³⁵ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155-158, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹³⁶ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 59-60. The Project area meets the characteristics for an urban setting with respect to typical building heights of 6 stories or much higher, grid street pattern, minimal setbacks, constrained parking, high parking prices, high-quality rail service (i.e., Metro Blue, Expo, Red, and Purple Lines), location relative to regional cores (5 miles or less), and jobs/housing balance (the Central City Community Plan Area has an existing jobs/housing ratio of approximately 7.2).

reducing trips and VMT, and associated air pollutant emissions, and promoting sustainable growth.¹³⁷

- Location Efficiency:** Location efficiency describes the location of a project relative to the type of urban landscape such as an urban area, compact infill, or suburban center. In general, compared to the Statewide average, a project could realize VMT reductions up to 65 percent in an urban area, up to 30 percent in a compact infill area, or up to 10 percent in a suburban center for land use/location strategies.¹³⁸ This characteristic corresponds to CAPCOA guidance strategy LUT-2.¹³⁹ According to CAPCOA, the reduction in VMT from this characteristic applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location within an identified HQTa and a TPA and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include the geographic location of a project within the region. The Project Site represents an urban infill location within the Downtown community of Los Angeles. The Project Site is served by existing public transportation located within a quarter-mile. The Project Site is within an active urban center with many existing off-site commercial and residential buildings. The location efficiency of the Project Site would result in synergistic benefits that would reduce vehicle trips and VMT compared to the Statewide and Air Basin averages and would result in corresponding reductions in transportation-related emissions. This land use characteristic is included as a land use strategy in SCAG's 2016-2040 RTP/SCS for reducing trips and VMT and associated air pollutant emissions, and promoting sustainable growth.¹⁴⁰
- Increased Land Use Diversity and Mixed-Uses:** Locating different types of land uses near one another can decrease VMT since trips between land use types are

¹³⁷ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42, 4-43. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

¹³⁸ CalEEMod, by default, assumes that trip distances in the South Coast Air Basin are slightly longer than the Statewide average. This is due to the fact that commute patterns in the South Coast Air Basin involve a substantial portion of the population commuting relatively far distances, which is documented in the Southern California Association of Governments 2016-2040 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). The RTP/SCS shows that, even under future Plan conditions, upwards of 52 percent of all work trips would be 10 miles or longer (SCAG, Performance Measures Appendix, p. 13, 2016). The RTP/SCS does not specify the current percentage of work trips greater than 10 miles in the region, but it can be assumed that the percentage is currently greater than 52 percent since the goal of the RTP/SCS is to reduce overall per capita VMT in the region. It is thus reasonable to assume that the trip distances in South Coast Air Basin are analogous to the statewide average given that the default model trip distances in the South Coast Air Basin are slightly longer but still generally similar to the statewide average. Therefore, projects could achieve similar levels of VMT reduction (65 percent in an urban area, 30 percent in a compact infill area, or 10 percent for a suburban center) compared to the South Coast Air Basin average.

¹³⁹ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 159-161, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹⁴⁰ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42, 4-43. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

shorter and could be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This characteristic corresponds to CAPCOA guidance strategy LUT-3.¹⁴¹ According to CAPCOA, the reduction in VMT from this characteristic applies to urban and suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The Project is located in an urban infill location within an identified TPA and is mixed-use; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include the percentage of each land use type in the project. The Project would co-locate complementary restaurant, retail, and residential land uses in close to proximity to existing off-site commercial and residential uses. The Project would include on-site restaurant, retail, and residential land uses and would be located within a quarter-mile of off-site commercial and residential uses. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking between the Project Site and nearby land uses for some types of trips, and encourage non-automotive forms of transportation for other kinds of trips, which would result in corresponding reductions in transportation-related emissions.

- Increased Destination Accessibility:** This characteristic corresponds to CAPCOA guidance strategy LUT-4.¹⁴² According to CAPCOA, the reduction in VMT from this characteristic applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location within an identified TPA and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include the distance to Downtown or major job center. The Project would be located in an area that offers access to multiple other nearby destinations including restaurant, bar, office, retail, entertainment, movie theater, the Convention Center, and residential uses. The Project Site is also located near other job centers in the region that are accessible via public transportation (e.g., Los Angeles County Metropolitan Transportation Authority [Metro] Red Line) such as Hollywood, and within Downtown Los Angeles. Ready access to multiple destinations in close proximity to the Project Site would reduce vehicle trips and VMT compared to the Statewide and Air Basin average, and encourage walking and non-automotive forms of transportation, and result in corresponding reductions in transportation-related emissions. This land use characteristic is included as a land use strategy in SCAG's 2016-2040 RTP/SCS for reducing trips and VMT, and associated air pollutant emissions, and promoting sustainable growth.¹⁴³

¹⁴¹ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162-166, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹⁴² California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 167-170, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹⁴³ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42, 4-43. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

- Increased Transit Accessibility:** Locating a project with high density near transit facilitates the use of transit by people traveling to or from the Project Site. This characteristic corresponds to CAPCOA guidance strategy LUT-5.¹⁴⁴ According to CAPCOA, the reduction in VMT from this characteristic applies to urban and suburban settings (also potentially for rural settings adjacent to a commuter rail station with convenient access to a major employment center) for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location within an identified Transit Priority Area and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include the distance to transit stations near the project. The Project would be located within a quarter-mile of public transportation, including the existing Metro Pico light rail station, Metro bus routes (e.g., local 2, 4, 10, 14, 28, 30, 33, 37, 40, 45, 48, 55, 66, 70, 71, 76, 78, 79, 81, 90, 91, 94, and 96; limited 302, 330, 335, 355, and 378; express 442 and 460; rapid 728, 733, 745, 770, and 794; and Metro Silver), Los Angeles Department of Transportation (LADOT) Downtown Area Short Hop (DASH), LADOT Commuter Express, Santa Monica Big Blue Bus, Foothill Transit, Orange County Transportation Authority (OCTA), and Torrance Transit. Existing public sidewalks would provide access to on-site uses. The Project would also provide hundreds of on-site bicycle parking spaces to encourage utilization of bicycles as an alternative mode of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the Statewide and Air Basin average, encourage walking and non-automotive forms of transportation, and would result in corresponding reductions in transportation-related emissions. This land use characteristic is included as a land use strategy in SCAG's 2016-2040 RTP/SCS for reducing trips and VMT, and associated air pollutant emissions, and promoting sustainable growth.¹⁴⁵
- Improve Design of Development:** The street network provides for accessibility within a neighborhood and enhances walkability and connectivity. Street accessibility is usually measured in terms of number of intersections (e.g., 4-way intersections) per square mile, as an indicator for an area that is more pedestrian friendly compared to, for example, a typical suburban area that has long stretches of roads and fewer intersections for people to cross at and navigate their way around the area. This measure corresponds to CAPCOA guidance measure LUT-9.¹⁴⁶ According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location and is mixed-use; therefore, this measure applies to the Project. The Project would be located in a highly street-accessible area with over one hundred four-way intersections within a 1-mile radius of the Project Site, which

¹⁴⁴ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171-175, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹⁴⁵ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42, 4-43. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

¹⁴⁶ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, 2010, pages 182-185.

exceeds the standard intersection density assumed in baseline VMT modeling. The increased intersection density would reduce vehicle trips and VMT versus the statewide and Air Basin average, by encouraging walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.

- Provide Pedestrian Network Improvements:** Providing pedestrian access that minimizes barriers and links the Project Site with existing or planned external streets encourages people to walk instead of drive. This characteristic corresponds to CAPCOA guidance strategy SDT-1.¹⁴⁷ According to CAPCOA, the reduction in VMT from this characteristic applies to urban, suburban, and rural settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an urban infill location within an identified TPA and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include pedestrian access connectivity within the project and to/from off-site destinations. As discussed in Chapter II, *Project Description*, the Project would improve the street-level pedestrian environment and connectivity to the surrounding Downtown area, with pedestrian access to commercial/restaurant uses provided at a publicly accessible Plaza at the corner of Olive Street and 11th Street. The Plaza's streetscaping, landscaping, and public art, as well as new street trees along the Project's sidewalks, would be visible along the Project edges and contribute positively to the appearance of the Project Site, which would create an attractive and inviting walkable environment. In summary, the Project would provide an internal pedestrian network for Project visitors and residents that links to the existing off-site pedestrian network, including existing off-site sidewalks, and would therefore result in a small reduction in VMT and associated transportation-related emissions. This land use characteristic is included as a land use strategy in SCAG's 2016-2040 RTP/SCS for reducing trips and VMT, and associated air pollutant emissions, and promoting sustainable growth.¹⁴⁸

As discussed above, the Project has been designed to incorporate features to attract pedestrians and to promote non-motorized transportation modes such as walking and biking. Further, its land use characteristics (including Increased Density, Location Efficiency, Increased Land Use Diversity and Mixed-Uses, and Increased Transit Accessibility), discussed above, many of which overlap the strategies in the 2016 AQMP, have been shown by CAPCOA to reduce vehicle trips and VMT, and corresponding vehicle emissions; the Project's incorporation of these features further demonstrates its consistency with the 2016 AQMP by reducing vehicle trips, VMT and associated air pollutant emissions.

¹⁴⁷ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 186-189, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹⁴⁸ South Coast Air Quality Management District, Air Quality Management Plan (AQMP), 2016, page 4-42, 4-43. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed October 11, 2018.

(ii) *Growth Projections*

The Project is anticipated to be operational in 2023. As discussed in Section IV.I, *Land Use and Planning*, of this Draft EIR, the Project's growth would also be consistent with the growth projections contained in the 201-2040 RTP/SCS. The Project's proposed 794 housing units would comprise 1.0 percent of SCAG's year 2023 estimated increase of 78,962 households within the City and 0.3 percent of SCAG's 2040 estimated increase of 292,362 households within the City. The Project would result in a slight increase in the number of employees on the Project Site of approximately 49 employees, and as such, the Project would have a very small effect on the overall employment projections for the City and Downtown areas. Within the Downtown area, the estimated 2017 jobs/housing ratio in Downtown area is 7.3, which is substantially greater than the City and regional averages.¹⁴⁹ The jobs to housing ratio for the Project itself would be 0.06. Thus, the Project would have a very small effect on the overall employment projections for the City and Downtown areas but would contribute to an improvement in the jobs/housing balance of the Downtown area by providing residential uses in a jobs rich area such that Project residents could live in the same area in which they work. Therefore, the Project's contribution to housing would be consistent with SCAG housing projections for the City and would have little effect on employment projections for the City. The Project's increases in population, housing, and employment would therefore be consistent with SCAG's 2016-2040 RTP/SCS goals and would be consistent with the growth projections contained in SCAG's 2016-2040 RTP/SCS, which form the basis of the growth projections in the 2016 AQMP. The Project's proximity to public transit would allow the Project's projected growth to be accommodated by existing transportation resources and would decrease the time and cost of traveling as well as vehicular demand and associated pollutants. The Project's new housing and job growth would be located in a HQTa, which SCAG defines as an area within a half mile of a well-served transit stop,¹⁵⁰ and a TPA, which the City defines as an area within one-half mile of a major transit stop that is existing or planned.¹⁵¹ The Project's growth in households and employees would occur at a location well-served by public transportation and in proximity to existing employment and commercial areas, which would minimize potential growth in transportation-related

¹⁴⁹ Estimated jobs/housing ratio for the Community Plan area, based upon SCAG projections aggregated to the Community Plan area, by the Department of City Planning Demographics Unit, and interpolated to year 2017 by ESA. Projections are based on the 2016 RTP/SCS that are included in Appendix L, of this Draft EIR.¹⁵⁰ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016, page 8, <http://scagrtpscsc.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

¹⁵⁰ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016, page 8, <http://scagrtpscsc.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

¹⁵¹ City of Los Angeles, Department of City Planning, Zoning Information File ZI NO. 2451 Transit Priority Areas (TPAs)/Exemptions to Aesthetics and Parking within TPAs Pursuant to CEQA, <https://files.alston.com/files/docs/ZI%202451-TPA-Aesthetics-and-Parking.pdf>. Accessed October 2018.

emissions. The Project's urban infill location also supports the policies and objectives of the City's General Plan Air Quality Element, as discussed in the next section below.

As discussed above under Methodology, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality reductions identified in the AQMP, even if their emissions exceed the SCAQMD's numeric indicators.¹⁵² The Project would also be consistent with the growth projections in the 2016 AQMP, since the growth would occur in a HQTa and a TPA, resulting in highly transportation-efficient growth, which would minimize growth in transportation-related emissions. **Therefore, the Project would be consistent with, and would not conflict with the implementation of the 2016 AQMP, and the potential impact regarding the 2016 AQMP would be less than significant.**

(2) General Plan Air Quality Element

The City's General Plan Air Quality Element includes Citywide policies that are related to air quality. The Project's location and characteristics, as discussed above, would achieve several goals, policies and objectives of the Air Quality Element by locating its development in an urban infill area and by establishing a land use pattern that promotes sustainability. As described above, the Project would support and encourage pedestrian activity in the Downtown Los Angeles area, and contribute to a land use pattern that addresses housing needs but at the same time reduces vehicle trips and air pollutant emissions by locating residential uses within an identified TPA that has multiple public transit options (with access to existing regional bus and rail service), and employment opportunities, restaurants and entertainment, all within walking distance. **Table IV.B-6, Comparison of Project Characteristics with Applicable Air Quality Policies of the General Plan**, assesses the consistency of the Project with the applicable air quality goals, objectives, and policies in the Air Quality Element of the General Plan. **As shown therein, the Project would be consistent with and not conflict with, applicable air quality policies of the General Plan's Air Quality Element and impacts would be less than significant.**

**TABLE IV.B-6
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE AIR QUALITY POLICIES OF
THE GENERAL PLAN**

Recommendation	Project Characteristics
Air Quality Element	
Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure.	The Project would provide residential uses and employment opportunities in proximity to existing job centers and multiple existing transit options on an urban infill site in downtown Los Angeles. As such, Project residents can live near their work,

¹⁵² South Coast Air Quality Management District, CEQA Air Quality Handbook (1993), page 12-1, [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). Accessed June 2018.

Recommendation	Project Characteristics
	<p>and have access to convenient modes of transportation that provide options for reducing reliance on automobiles, thereby minimizing associated air pollutant emissions. The Project would incorporate project design features that would meet and exceed the applicable requirements of the State of California Green Building Standards Code (CALGreen Code) and the City of Los Angeles Green Building Code. The Project would also reduce VMT as a result of its mixed-use design and increased density in an urban infill location within an identified TPA, with nearby access to public transportation within a half-mile of the Project Site, and its proximity to other destinations including job centers, retail and entertainment. The Project would also allow people to live near recreational amenities. As a result, the Project would provide people with convenient mobility options and a wide range of economic/employment opportunities.</p>
<p>Objective 1.1: It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan, increase traffic mobility, and sustain economic growth citywide.</p>	<p>The Project's location, land use characteristics and project design features would reduce emissions associated with energy and transportation. As discussed under Threshold a), the Project would be consistent with the relevant SCAG growth projections in the SCAG 2016-2040 RTP/SCS that were used in preparing the 2016 AQMP. The Project would occupy a location within an identified Transit Priority Area that is highly accessible by regional and local bus lines, including the Metro bus routes (14, 28, 37, 70, 71, 76, 78, 79, 96 and 378), two Rapid Lines (770 and 728), one Foothill Transit Line (FT Silver Streak), one Santa Monica Transit Line (BBB10), and two LADOT Commuter Express Lines CE 431 and CE 437, as well as the Metro Blue/Expo rail line at the Metro Blue/Expo Line Pico Station, where the Blue line provides convenient access to locations within Downtown Los Angeles, Long Beach and Compton, and where the Expo line provides convenient access to locations in Los Angeles, Culver City and Santa Monica. As such, the Project would be supportive of the Transportation Control Measures in the AQMP related to reducing vehicle trips for employees, visitors and residents. The Project would increase residential and commercial density near public transit, which would reduce the Project's transportation-related emissions compared to a development that is not located near transit options.</p>
<p>Objective 1.3: It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.</p>	<p>The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403. The Project would also comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks reducing exhaust diesel particulate matter emissions. The Project would require the construction contractor(s) to comply with the applicable provisions of the CARB In-Use Off-Road Diesel Vehicle Regulation, which aims to reduce emissions through the installation of diesel particulate matter filters and encouraging the retirement, replacement, or repower of older, dirtier</p>

Recommendation	Project Characteristics
	engines with newer emission-controlled models. The Project would require the contractors and vendors to comply with the applicable provisions of the CARB Truck and Bus regulation to reduce PM and NO _x emissions from existing diesel trucks.
Policy 1.3.1: Minimize particulate emissions from construction sites.	The Project would incorporate measures that would reduce particulate air pollutants from construction activity as described above under Objective 1.3.
Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403, which would minimize particulate emissions from unpaved roads and parking lots associated with construction-related vehicular traffic. See also description under Objective 1.3.
Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.	The Project's land use characteristics would reduce trips and VMT due to its mixed-use design and increased density in an urban infill location within an identified TPA, with nearby access to public transportation within a half-mile of the Project Site and its location in an area with access to multiple other destinations, including job centers, and retail uses. In addition, the Project would include on-site residential, and commercial/restaurant land uses which would serve the local community and reduce reliance on single-occupancy vehicles. The Project would also provide bicycle parking facilities to encourage alternative modes of transportation.
Objective 2.1: It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.	The Project would be located within an identified Transit Priority Area within a quarter-mile of existing public transportation, including the Metro bus routes (14, 28, 37, 70, 71, 76, 78, 79, 96 and 378), two Rapid Lines (770 and 728), one Foothill Transit Line (FT Silver Streak), one Santa Monica Transit Line (BBB10), and two LADOT Commuter Express Lines CE 431 and CE 437, as well as the Metro Blue/Expo rail line at the Metro Blue/Expo Line Pico Station, that would provide access to multiple destinations. Existing public sidewalks would provide access to on-site uses. The Project would also provide bicycle parking facilities. These features would reduce work trips and encourage employees, residents and visitors to utilize alternative modes of transportation.
Policy 2.1.1: Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	The Project proposes a TDM package that would reduce trips. Components could include promotion and support of carpools and rideshares, including parking and transit incentives, preferential parking for carpools and vanpools for employees, a Transit Welcome Package, participation in a Car-Share Program to provide spaces for car-share vehicles, on-site bicycle amenities, and a Ridesharing Services Program. Refer to Section IV.M, <i>Transportation and Traffic</i> of the Project's Draft EIR, for information regarding the TDM Program.
Objective 2.2: It is the objective of the City of Los Angeles to increase vehicle occupancy for non-work trips by	While this action applies to the City of Los Angeles and is not applicable to the Project, the Project would be located within an identified TPA within a quarter-mile of existing public

Recommendation	Project Characteristics
creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.	transportation, including the Metro bus routes (14, 28, 37, 70, 71, 76, 78, 79, 96 and 378), two Rapid Lines (770 and 728), one Foothill Transit Line (FT Silver Streak), one Santa Monica Transit Line (BBB10), and two LADOT Commuter Express Lines CE 431 and CE 437, as well as the Metro Blue/Expo rail line at the Metro Blue/Expo Line Pico Station, that would provide access to multiple destinations. Furthermore, the Project proposes a TDM package that would reduce trips. Components could include promotion and support of carpools and rideshares, including parking and transit incentives, preferential parking for carpools and vanpools for employees, a Transit Welcome Package, unbundling of residential parking, participation in a Car-Share Program to provide spaces for car-share vehicles, on-site bicycle amenities, and a Ridesharing Services Program. Refer to Section IV.M, <i>Transportation and Traffic</i> of the Project's Draft EIR, for information regarding the TDM Program.
Policy 2.2.1: Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	The Project is proposed on an infill location and would incorporate pedestrian pathways and a Plaza that connect to the existing sidewalk network. The Project would also encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which the Project would designate a minimum of 5 percent of on-site parking for electric vehicles. The Project would provide bicycle parking spaces and facilities and would implement a TDM program aimed at reducing automobile trips, as described in the discussion of consistency with Objective 2.2, above. In addition, the Project's land use characteristics, including its Location Efficiency, Increased Land Use Diversity and Mixed-Uses, Increased Transit Accessibility, Improved Design of Development, and Pedestrian Network Improvements, have been shown by CAPCOA to reduce VMT. In addition, as discussed previously, the Project would be located within an identified TPA within a half-mile of existing and potential future planned public transportation, including the existing Metro bus routes (14, 28, 37, 70, 71, 76, 78, 79, 96 and 378), two Rapid Lines (770 and 728), one Foothill Transit Line (FT Silver Streak), one Santa Monica Transit Line (BBB10), and two LADOT Commuter Express Lines CE 431 and CE 437, as well as the Metro Blue/Expo rail line at the Metro Blue/Expo Line Pico Station.
Policy 2.2.2: Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	While this action applies to the City of Los Angeles and is not applicable to the Project, the Project would encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which the Project would designate a minimum of 5 percent of on-site parking for electric vehicles. Furthermore, the Project proposes a TDM package,

Recommendation	Project Characteristics
	<p>discussed above, that would reduce trips. Components could include promotion and support of carpools and rideshares, including parking and transit incentives, preferential parking for carpools and vanpools for employees, unbundling of residential parking, and participation in a Car-Share Program to provide spaces for car-share vehicles. Refer to Section IV.M, <i>Transportation and Traffic</i> of the Project's Draft EIR, for information regarding the TDM Program.</p>
<p>Goal 4: Minimize impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.</p>	<p>The Project would reduce trips and VMT due to its mixed-use design and increased density in an urban infill location within an identified TPA, on-site amenities and commercial/restaurant uses, access to public transportation within a half-mile of the Project Site, and close proximity to multiple other destinations including job centers and retail uses. The Project would increase the residential density near public transportation options, which would allow people to live near places of employment, retail, and recreation. As discussed above, the Project is consistent with the 2016 AQMP and the 2016-2040 RTP/SCS.</p>
<p>Objective 4.1: It is the objective of the City of Los Angeles to include the regional attainment of ambient air quality standards as a primary consideration in land use planning.</p>	<p>The Project would occupy an urban infill location within an identified TPA in the Downtown Los Angeles area. The Project would co-locate complementary residential and commercial land uses in proximity to existing job centers and retail uses. The Project would be located within a half-mile of existing public transportation. Air quality impacts would be less than significant and would not cause or contribute to an exceedance of the ambient air quality standards. The analysis of the Project's potential air quality impacts relies upon the numeric indicators established by the SCAQMD, which promote attainment of the ambient air quality standards. The Project's location and its land use characteristics would reduce land use planning-related air pollutant emissions, primarily mobile source emissions, consistent with the CAPCOA guidance document entitled <i>Quantifying Greenhouse Gas Mitigation Measures</i>, which provides emission reduction values for recommended strategies for reducing VMT and associated GHG and air pollutant emissions (see Subsection 3.c, <i>Project Characteristics</i>, in this Section). As is also discussed above in this Section, the Project's location and its land use characteristics are consistent with the land use and transportation control strategies identified in the 2016-2040 RTP/SCS that are incorporated into the 2016 AQMP, and that are identified as reducing mobile source emissions, including criteria pollutant emissions.</p>
<p>Objective 4.2: It is the objective of the City of Los Angeles to reduce vehicle trips and VMT associated with land use patterns.</p>	<p>The Project would reduce trips and VMT due to its mixed-use design and increased density in an urban infill location within an identified TPA, access to public transportation within a quarter-mile of the Project Site, and proximity to employment and retail destinations. The Project would include on-site retail, restaurant, and residential land uses that would serve the local community and would be located within a quarter-mile of off-</p>

Recommendation	Project Characteristics
Policy 4.2.2: Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	<p>site commercial and residential uses. The Project would also provide bicycle parking facilities to encourage utilization of alternative modes of transportation. See the discussion of Project characteristics and the discussion regarding consistency with the 2016 AQMP, above.</p> <p>By providing residential, and commercial/restaurant uses in a compact urban infill location, the Project would add new residents as well as employment opportunities that are readily accessible via public and alternative forms of transportation including walking and bicycling. The Project would occupy an urban infill location within an identified TPA with access to public transportation within a half-mile of the Project Site. Nearby employment, shopping, and other establishments would be highly accessible to new residents. This is demonstrated by the low VMT, high walkability, and abundant public transportation options in the Project vicinity. Taken together, along with the Project's abundant bicycle parking, the Project would improve accessibility to places of employment, shopping centers, and other establishments.</p>
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	<p>The Project would provide bicycle parking facilities to encourage utilization of alternative modes of transportation. The Project would also provide access to on-site uses from existing pedestrian pathways. The Project would also provide infrastructure for electric vehicle charging stations and preferential parking for hybrid/electric vehicles. The Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which the Project would designate a minimum of 5 percent of on-site parking for electric vehicles.</p>
Policy 4.2.4: Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	<p>The environmental review and potential approval of the Project include an analysis of air quality impacts.</p>
Policy 4.2.5: Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	<p>The Project proposes a TDM package that would reduce trips. Components could include promotion and support of carpools and rideshares, including parking and transit incentives, preferential parking for carpools and vanpools for employees, a Transit Welcome Package, participation in a Car-Share Program to provide spaces for car-share vehicles, on-site bicycle amenities, and a Ridesharing Services Program. Refer to Section IV.M, <i>Transportation and Traffic</i> of the Project's Draft EIR, for information regarding the TDM Program. The Project also incorporates characteristics that would reduce VMT and trips, encourage alternative modes of transportation, and incorporate congestion management. The Project proposes a mixed-use design and increased density in an urban infill location within an identified TPA within a half-mile of existing public transportation, and would provide bicycle</p>

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parking facilities to encourage alternative modes of transportation.

Goal 5: Energy efficiency through land use and transportation planning, the use of renewable resources and less polluting fuels, and the implementation of conservation measures including passive methods such as site orientation and tree planting.

The Project would be designed and operated to meet or exceed the applicable requirements of the CALGreen Code and the City of Los Angeles Green Building Code. In addition to providing infrastructure for hybrid/electric vehicles as described above, the Project would incorporate sustainability measures and performance standards including diverting mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029, optimize energy performance and reduce building energy cost by 5 percent, and reducing indoor water use by 40 percent for indoor water and 50 percent for outdoor water. The Project would include the addition of 137 canopy trees and just over approximately 0.2 acres of planting area of native plants, shrubs, perennials, and ground-cover at the Project Site. The Project would provide a large elevated garden on both the 8th and 10th floor terraces, with three outdoor amenity spaces with planting areas and canopy trees, and a rooftop garden with planting areas and canopy trees, and therefore the Project would incorporate heat island reduction strategies for the Project roof areas. Landscaping would be provided along the street edges and throughout all of the Project's open space and would be selected from a large pallet of native plants (refer to Figure II-4 of Chapter II, *Project Description*). New street trees would be consistent with the City's Bureau of Street Services, Urban Forestry Division standards.

Objective 5.1: It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.

As discussed above, the Project would be designed and operated to meet or exceed the applicable requirements of the CALGreen Code and the City of Los Angeles Green Building Code.

Policy 5.1.2: Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.

As discussed above, the Project would be designed and operated to meet or exceed the applicable requirements of the State of CALGreen Code and the City of Los Angeles Green Building Code.

Policy 5.1.4: Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.

The Project would divert mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029. The Project would also provide space for the collection and storage of recyclables such as paper, cardboard, glass, plastic, and metals.

Objective 5.3: It is the objective of the City of Los Angeles to reduce the use of polluting fuels in stationary sources.

The Project is not a stationary source project; however, operation of the Project would include an emergency generator that would be subject to and comply with the applicable emissions standards and maintenance and testing conditions specified in SCAQMD Rule 1470 to minimize emissions. During construction, AQ-PDF-2 requires that pole power will be made available for use for electric tools, equipment, lighting, etc. Construction equipment such as tower cranes and signal

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Policy 5.3.1: Support the development and use of equipment powered by electric or low-emitting fuels.	boards must utilize electricity from power poles or alternative fuels (i.e., non-diesel), rather than diesel power generators and/or gasoline power generators. Compliance with SCAQMD Rule 1470 and implementation of AQ-PDF-2 would reduce the use of polluting fuels in stationary sources. The Project would implement AQ-PDF-1, which requires the Project to install electric-vehicle charging stations, which would encourage the use of lower emitting plug-in hybrid electric or zero-emissions electric vehicles. In addition, AQ-PDF-2 requires the Project to use alternative-fueled generators the generate less NO _x and particulate matter emissions when compared to equivalent diesel-fueled models when commercial models that have the power supply requirements to meet the construction needs of the Project are commercially available from local suppliers/vendors.
SOURCE: ESA, 2018	

Threshold b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? Less than Significant Impact with the implementation of Mitigation Measures.

The Project would contribute to air pollutant emissions during construction (short-term or temporary) and Project operations (long-term). However, based on the following analysis, construction and operation of the Project would result in less than significant impacts relative to the maximum daily emissions as compared to the SCAQMD regional significance thresholds for construction and operational phases for criteria air pollutant emissions in which the region is non-attainment under the CAAQS or NAAQS (i.e., ozone precursors of VOCs and NO_x, PM₁₀, and PM_{2.5}). In addition, and as demonstrated below, construction and operational emissions from the Project would not exceed the SCAQMD regional significance thresholds for attainment, maintenance, or unclassifiable criteria air pollutants (i.e., CO and SO₂).

(1) Construction

Construction of the Project has the potential to generate temporary regional criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and forklifts, through vehicle trips generated by workers and haul trucks traveling to and from the Project Site, and through building activities such as the application of paint and other surface coatings. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NO_x, would result from the use of construction equipment such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the

level of activity, the specific type of construction activity, and prevailing weather conditions.¹⁵³

The maximum daily construction emissions for the Project were estimated for each construction phase. Some individual construction phases could potentially overlap; therefore, the estimated maximum daily emissions include these potential overlaps by combining the relevant construction phase emissions. The maximum daily emissions are predicted values for a representative worst-case day, and do not represent the actual emissions that would occur for every day of construction, which would likely be lower on many days. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

The results of the criteria pollutant calculations are presented in **Table IV.B-7, *Estimated Maximum Regional Construction Emissions without Project Design Features*** and **Table IV.B-8, *Estimated Maximum Regional Construction Emissions with Project Design Features***. The calculations in Table IV.B-8 incorporate compliance with applicable PDFs including AQ-PDF-2, and dust control measures required to be implemented during each phase of construction by SCAQMD Rule 403 (Control of Fugitive Dust) and fugitive VOC control measures required to be implemented by architectural coating emission factors based on SCAQMD Rule 1113 (Architectural Coatings).

TABLE IV.B-7
ESTIMATED MAXIMUM REGIONAL CONSTRUCTION EMISSIONS WITHOUT PROJECT DESIGN
FEATURES (POUNDS PER DAY) ^a

Source	VOC	NO _x	CO	SO ₂	PM10 ^b	PM2.5 ^b
Overlapping Phases						
Demolition + Site Preparation +Grading/Excavation	5	60	45	0.1	5	3
Grading/Excavation + Drainage/Utilities/Trenching + Foundations/Concrete Pour	10	123	72	0.3	15	7
Continuous Concrete Pour	23	481	110	1.1	42	19
Foundations/Concrete Pour + Building Construction + Architectural Coatings	18	45	74	0.2	16	6
Foundations/Concrete Pour + Building Construction + Architectural Coatings	17	40	70	0.2	16	5
Building Construction + Architectural Coatings + Pavings	15	32	54	0.2	12	4
Maximum Daily Emissions	23	481	110	1.1	42	19
SCAQMD Numeric Indicators	75	100	550	150	150	55

¹⁵³ Impacts from asbestos and lead-based paint from Project demolition are expected to be less than significant and less than significant after implementation of mitigation measures, respectively. For additional details please refer to Section IV.G, Hazards and Hazardous Materials of this Draft EIR.

Source	VOC	NO _x	CO	SO ₂	PM10 ^b	PM2.5 ^b
Exceeds Thresholds?	No	Yes	No	No	No	No

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

^b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403. Rule 403 measures included in the CalEEMod emissions modeling include the application of water to exposed and unpaved surfaces three times daily and limiting vehicle speeds to 15 miles per hour on unpaved roads.

SOURCE: ESA, 2019.

TABLE IV.B-8
ESTIMATED MAXIMUM REGIONAL CONSTRUCTION EMISSIONS WITH PROJECT DESIGN
FEATURES (POUNDS PER DAY) ^a

Source	VOC	NO _x	CO	SO ₂	PM10 ^b	PM2.5 ^b
Overlapping Phases						
Demolition + Site Preparation +Grading/Excavation	2	27	48	0.1	3	1
Grading/Excavation + Drainage/Utilities/Trenching + Foundations/Concrete Pour	8	96	75	0.3	13	5
Continuous Concrete Pour	12	373	63	1.2	34	11
Foundations/Concrete Pour + Building Construction + Architectural Coatings	16	22	66	0.2	15	4
Foundations/Concrete Pour + Building Construction + Architectural Coatings	15	19	62	0.2	14	4
Building Construction + Architectural Coatings + Pavings	13	15	49	0.2	11	3
Maximum Daily Emissions	16	373	75	1.2	34	11
SCAQMD Numeric Indicators	75	100	550	150	150	55
Exceeds Thresholds?	No	Yes	No	No	No	No

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

^b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403. Rule 403 measures included in the CalEEMod emissions modeling include the application of water to exposed and unpaved surfaces three times daily and limiting vehicle speeds to 15 miles per hour on unpaved roads.

SOURCE: ESA, 2019.

As shown in Table IV.B-8, construction-related daily emissions would not exceed the SCAQMD numeric indicators of significance with the exception of short-term and temporary NO_x emissions during the one-day continuous concrete pour phase. All other emissions levels would be below the applicable numeric indicators. The NO_x emissions result primarily from on-site construction equipment, and on-road hauling and concrete truck emissions generated during truck travel and idling during the one-day continuous concrete pour phase. Therefore, the Project's temporary and short-term NO_x impact resulting from the one-day continuous concrete pour phase would be potentially significant, and mitigation measures are required; however, as discussed below in subsection 3.f), *Mitigation Measures*, this impact would be reduced to less than significant with the implementation of the identified mitigation measures.

(2) Operations

Mobile, stationary, and area source operational regional criteria pollutant emissions were calculated for the Project's full buildout year. Operational emission estimates assume compliance with AQ-PDF-1, which includes increased energy efficiency features. Reductions in building energy and resource consumption due to physical and operational Project characteristics for which sufficient data is available to enable quantification have been included in the quantitative analysis, and include, but are not limited to, characteristics such as the installation of energy efficient appliances and reduced building energy usage sufficient to meet the Title 24-2016 standard. Operational emission estimates include compliance with SCAQMD Rule 1113 (Architectural Coatings), which limits the VOC content of architectural coatings. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

Daily trip generation rates and VMT for the Project were provided by the Project Transportation Study¹⁵⁴ and include trips associated with the proposed multi-family residences, and retail space/restaurants. The VMT include reductions attributable to the Project characteristics, as discussed previously.

Natural gas usage factors are based on commercial and residential data from the California Energy Commission, and landscape equipment emissions are based on off-road emission factors from CARB. Emissions from the use of consumer products and the reapplication of architectural coatings are based on data provided in CalEEMod.

The results of the regional criteria pollutant emission calculations for VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} are presented in **Table IV.B-9, *Estimated Maximum Regional Operational Emissions***. The Project's operational-related daily emissions would not exceed the SCAQMD numeric indicators. Therefore, with respect to regional emissions from operational activities, impacts would be less than significant. **As the Project's**

¹⁵⁴ The Mobility Group, 1045 Olive Project Transportation Study, June 2019. Provided in Appendix N of this Draft EIR.

maximum regional emissions from operations would be below the regional numeric indicators, regional operational emissions impacts would be less than significant.

TABLE IV.B-9
ESTIMATED MAXIMUM REGIONAL OPERATIONAL EMISSIONS (POUNDS PER DAY) ^a

Source	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing						
Area (Coating, Consumer Products, Landscaping)	<1	<1	<1	0	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1	<1	<1
Mobile	1	2	9	<1	<1	<1
Total Existing	2	2	9	<1	<1	<1
Proposed Project						
Area (Coating, Consumer Products, Landscaping)	20	1	66	<1	<1	<1
Stationary (Charbroiler)	<1	-	-	-	<1	<1
Stationary (Emergency Generator)	<1	1	8	<1	<1	<1
Energy	<1	3	2	<1	<1	<1
Mobile	15	24	113	<1	6	2
Total Project	36	29	188	<1	7	3
Net Increase						
Area (Coating, Consumer Products, Landscaping)	19	1	66	<1	<1	<1
Stationary (Charbroilers)	<1	-	-	-	<1	<1
Stationary (Emergency Generators)	<1	1	8	<1	<1	<1
Energy	<1	3	2	<1	<1	<1
Mobile	14	22	104	<1	5	2
Net Total Regional Emissions	34	27	180	<1	6	3
SCAQMD Numeric Indicators	55	55	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

SOURCE: ESA, 2018.

Threshold c) Would the Project expose sensitive receptors to substantial pollutant concentrations? Less than Significant.

(1) Localized Construction Emissions

As explained above, the localized construction air quality analysis was conducted using the methodology prescribed in the SCAQMD *Final Localized Significance Threshold Methodology* (June 2003, revised July 2008).¹⁵⁵ The screening criteria provided in the *Final Localized Significance Threshold Methodology* were used to determine localized construction emissions thresholds for the Project. The maximum daily localized emissions for each of the construction phases and the localized significance thresholds are presented in **Table IV.B-10, Estimated Maximum Localized Construction Emissions without Project Design Features** and **Table IV.B-11, Estimated Maximum Localized Construction Emissions with Project Design Features**. The same phasing and equipment assumptions, and compliance with SCAQMD Rule 403 and Rule 1113, were used as for the regional emissions calculations discussed above. As shown below, maximum localized construction emissions for sensitive receptors would be below the localized screening indicators for NO_x, CO, PM₁₀, and PM_{2.5} based on the assumptions described in Subsection 3.b)(4), *Construction Emissions*, including that the nearest sensitive receptors would be located within 25 meters of the Project Site. The sensitive receptors nearest to the Project Site are multi-family residential uses to the north (1001 S. Olive Street) and multi-family residential uses to the west (1050 S. Grand Avenue) of the Project Site. Therefore, with respect to localized construction emissions, impacts to sensitive receptors would be less than significant.

TABLE IV.B-10
ESTIMATED MAXIMUM LOCALIZED CONSTRUCTION EMISSIONS WITHOUT PROJECT DESIGN FEATURES (POUNDS PER DAY) ^a

Source	NO _x	CO	PM ₁₀ ^b	PM _{2.5} ^b
On-site Construction Activities				
Demolition + Site Preparation +Grading/Excavation	39	39	2.9	2.3
Grading/Excavation + Drainage/Utilities/Trenching + Foundations/Concrete Pour	36	31	2.2	2.0
Continuous Concrete Pour	11	8	0.7	0.6
Foundations/Concrete Pour + Building Construction + Architectural Coatings	28	20	1.6	1.5
Foundations/Concrete Pour + Building Construction + Architectural Coatings	25	19	1.4	1.3
Building Construction + Architectural Coatings + Pavings	19	18	1.0	0.9

¹⁵⁵ South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, 2008, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>. Accessed June 2018.

Source	NO _x	CO	PM ₁₀ ^b	PM _{2.5} ^b
Maximum Localized (On-Site) Emissions	39	39	2.9	2.3
SCAQMD Screening Numeric Indicator^c	73	665	4.9	2.9
Exceed Screening Numeric Indicator?	No	No	No	No

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR. The derivations of the localized significance thresholds are also provided in Appendix C of this Draft EIR.

^b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403. Rule 403 measures included in the CalEEMod emissions modeling include the application of water to exposed and unpaved surfaces three times daily and limiting vehicle speeds to 15 miles per hour on unpaved roads.

^c The SCAQMD LSTs are based on Source Receptor Area 1 (Central Los Angeles County) for a 0.96-acre site with sensitive receptors assumed to be located within 25 meters of the Project Site construction area.

SOURCE: ESA, 2018.

TABLE IV.B-11
ESTIMATED MAXIMUM LOCALIZED CONSTRUCTION EMISSIONS WITH PROJECT DESIGN
FEATURES (POUNDS PER DAY)^a

Source	NO _x	CO	PM10 ^b	PM2.5 ^b
On-site Construction Activities				
Demolition + Site Preparation + Grading/Excavation – 2019	7	41	1.0	0.5
Grading/Excavation + Drainage/Utilities/Trenching + Foundations/Concrete Pour	9	34	0.7	0.6
Continuous Concrete Pour	2	6	0.2	0.1
Foundations/Concrete Pour + Building Construction + Architectural Coatings	4	12	0.3	0.3
Foundations/Concrete Pour + Building Construction + Architectural Coatings	4	12	0.2	0.2
Building Construction + Architectural Coatings + Pavings	3	14	0.1	0.1
Maximum Localized (On-Site) Emissions	9	41	1.0	0.6
SCAQMD Screening Numeric Indicator^c	73	665	4.9	2.9
Exceed Screening Numeric Indicator?	No	No	No	No

Source	NO _x	CO	PM10 ^b	PM2.5 ^b
<p>^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR. The derivations of the localized significance thresholds are also provided in Appendix C of this Draft EIR.</p> <p>^b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403. Rule 403 measures included in the CalEEMod emissions modeling include the application of water to exposed and unpaved surfaces three times daily and limiting vehicle speeds to 15 miles per hour on unpaved roads.</p> <p>^c The SCAQMD LSTs are based on Source Receptor Area 1 (Central Los Angeles County) for a 0.96-acre site with sensitive receptors assumed to be located within 25 meters of the Project Site construction area.</p> <p>SOURCE: ESA, 2018.</p>				

(2) Localized Operational Emissions

(a) Existing Sensitive Receptors

The localized operational air quality analysis was conducted using the methodology prescribed in the SCAQMD Localized Significance Threshold Methodology (June 2003, revised July 2008). The screening criteria provided in the Localized Significance Threshold Methodology were used to determine the localized operational emissions numerical indicators of significance for the Project. The same assumptions, including compliance with the Title 24 (2016) building energy efficiency standards, CALGreen Code, and City of Los Angeles Green Building Code, were used in the analysis. The maximum daily localized emissions and the localized significance thresholds are presented in **Table IV.B-12, Estimated Maximum Localized Operational Emissions for Existing Sensitive Receptors**. As the Project's maximum localized operational emissions would not exceed the localized numeric indicators for NO_x, CO, PM10, or PM2.5, operational emissions impacts to existing sensitive receptors would be less than significant.

TABLE IV.B-12
ESTIMATED MAXIMUM LOCALIZED OPERATIONAL EMISSIONS FOR EXISTING SENSITIVE RECEPTORS (POUNDS PER DAY) ^A

Source	NO _x	CO	PM10	PM2.5
Area (Coating, Consumer Products, Landscaping)	<1	66	0.4	0.4
Energy	3	2	0.2	0.2
Stationary (Charbroilers)	-	-	0.4	0.3
Stationary (Emergency Generators)	1	8	0.1	0.1
Total Localized (On-Site) Emissions	4	75	1.1	0.9
SCAQMD Screening Numeric Indicator^b	73	665	2.0	1.0
Exceeds Screening Numeric Indicator?	No	No	No	No

-
- ^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR.
- ^b The SCAQMD LSTs are based on Source Receptor Area 1 (Central Los Angeles County Costal) for a 0.96-acre site with sensitive receptors assumed to be located within 25 meters of the Project Site for operational emissions for LST purposes.
-

SOURCE: ESA, 2018

(b) *Future Sensitive Receptors*

As mentioned above, the locations of future sensitive receptors are identified on Figure IV.B-2 for informational purposes, since the projects that would hold these receptors are not part of the existing setting for the Project. Even so, for informational purposes, only, the effects of the Project's localized operational emissions on these future sensitive receptors were considered. As discussed in Subsection 2.c)(2)(d), *Sensitive Receptors and Locations*, one of the existing sensitive receptors, the Oakwood Olympic & Olive apartment complex, is closer to the Project Site than any of the future sensitive receptors. According to the localized operational air quality analysis conducted for the existing sensitive receptors, including the Oakwood Olympic & Olive apartment complex, using the methodology prescribed in the SCAQMD Localized Significance Threshold Methodology (June 2003, revised July 2008), the Project's maximum daily localized operational emissions would not exceed the localized numeric indicators for NO_x, CO, PM₁₀, or PM_{2.5}; therefore, localized air quality impacts would be lower at the future sensitive receptors than at the existing sensitive receptors, including the Oakwood Olympic & Olive apartment complex.

(3) Carbon Monoxide Hotspots

The potential for the Project to cause or contribute to CO hotspots was evaluated by comparing Project intersections (both intersection geometry and traffic volumes) with prior studies conducted by the SCAQMD in support of their AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the Project would not cause or contribute considerably to the formation of CO hotspots, that CO concentrations at Project-impacted intersections would remain well below the threshold one-hour and eight-hour CAAQS of 20 or 9.0 ppm, respectively within one-quarter mile of a sensitive receptor, and that no further CO analysis is warranted or required.

As shown previously in Table IV.B-3, CO levels in the Project Site Area are substantially below the federal and the state standards. Maximum CO levels in recent years were 3.2 ppm (one-hour average) and 2.0 ppm (eight-hour average) as compared to the criteria of 20 ppm (CAAQS one-hour average) or 35 ppm (NAAQS one-hour average) and 9.0 ppm (eight-hour average). No exceedances of the CO standards have been recorded at

monitoring stations in the Air Basin for some time,¹⁵⁶ and the Air Basin is currently designated as a CO attainment area for both the CAAQS and the NAAQS.

The SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; and (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP CO attainment demonstration, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day.¹⁵⁷ Relevant information from the 2003 AQMP CO attainment demonstration relied upon in this assessment is provided in Appendix C of this Draft EIR. This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions (i.e., excluding background concentrations) at these four intersections was 4.6 ppm (one-hour average) and 3.2 ppm (eight-hour average) at Wilshire Boulevard and Veteran Avenue.¹⁵⁸

Based on the Project's Transportation Study,¹⁵⁹ under Future plus Project (2023) conditions, the intersection of Figueroa Street and Olympic Boulevard would have a maximum traffic volume of approximately 80,090 ADT, and is assumed to operate at very low or idling speeds as a congested roadway intersection.¹⁶⁰ As a result, CO concentrations from the Project's maximum traffic volume at the intersection identified above plus the measured background level in the Project Site area are expected to be approximately 6.9 ppm (one-hour average) and 4.6 ppm (eight-hour average), which are well below the respective numerical indicators of significance, i.e., 20 ppm one-hour average and 9 ppm eight-hour average. Total traffic volumes at the maximally impacted intersection would likely have to more than double to cause or contribute to a CO hotspot impact, given that vehicles operating today have reduced CO emissions as compared to vehicles operating in year 2003 when the SCAQMD conducted the AQMP attainment

¹⁵⁶ South Coast Air Quality Management District, Final 2012 AQMP, (2013), page 2-22, [http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-\(february-2013\)/main-document-final-2012.pdf](http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/main-document-final-2012.pdf). Accessed November 1, 2017

¹⁵⁷ South Coast Air Quality Management District, 2003 Air Quality Management Plan, Appendix V: Modeling and Attainment Demonstrations, page V-4-24, 2003.

¹⁵⁸ The eight-hour average is based on a 0.7 persistence factor, as recommended by the SCAQMD.

¹⁵⁹ The Mobility Group, 1045 Olive Project Transportation Study, June 2019. Provided in Appendix N of this Draft EIR.

¹⁶⁰ The traffic volume of approximately 62,660 was estimated based on the peak hour intersection volumes under future with Project conditions and the general assumption that peak hour trips represent approximately 10 percent of daily trip volumes (the Federal Highway Administration considers 10 percent to be a standard assumption; see http://www.fhwa.dot.gov/planning/tmip/publications/other_reports/tod_modeling_procedures/ch02.cfm).

demonstration modeling.¹⁶¹ This comparison demonstrates that the Project traffic emissions would not contribute to the formation of CO hotspots and that no further CO analysis is required. The Project would result in less than significant impacts with respect to CO hotspots. The Project would not contribute to the formation of CO hotspots and no further CO analysis is required. Therefore, the Project would result in less than significant impacts with respect to CO hotspots.

(4) Toxic Air Contaminant Emissions

(a) Construction Emissions

Temporary TAC emissions associated with DPM emissions from heavy construction equipment would occur during the construction phase of the Project. According to the OEHHA and the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003),¹⁶² health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 70-year) resident exposure duration. Given the temporary and short-term construction schedule (48 months), the Project would not result in a long-term (i.e., lifetime or 70-year) exposure as a result of Project construction.

As discussed above, the Project would be consistent with the applicable 2016 AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. The Project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The Project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the demolition and construction activities. In addition, prior to issuance of any permit for the demolition or alteration of the existing structures, a comprehensive lead-based paint materials survey shall be performed to the written satisfaction of the City of Los Angeles Building and Safety Division. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to OSHA regulations.¹⁶³ The nearest residential air quality sensitive receptors are located adjacent to the Project Site on the north and west.

¹⁶¹ South Coast Air Quality Management District, 2003 Air Quality Management Plan, Chapter 6 Clean Air Act Requirements, 2003, <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2003-aqmp>. Accessed August, 2019.

¹⁶² South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, August 2003, <http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobile-source-toxics-analysis.doc?sfvrsn=2>. Accessed July 2018.

¹⁶³ Impacts from asbestos and lead-based paint from Project demolition are expected to be less than significant and less than significant after implementation of mitigation measures, respectively. For additional details please refer to Section IV.G, Hazards and Hazardous Materials of this Draft EIR.

With its incorporation of AQ-PDF-2, the Project would be required to utilize off-road diesel-powered construction equipment that meets or exceeds the most stringent and environmentally protective CARB and USEPA Tier 4 off-road emissions standards and would substantially reduce TAC emissions, in the form of DPM emissions, from the Project's construction equipment. The Tier 4 standards reduce DPM emissions by approximately 81 to 96 percent as compared to equipment that meet the Tier 2 off-road emissions standards, depending on the specific horsepower rating of each piece of equipment.¹⁶⁴ As shown in Table IV.B-11, the Project's localized PM_{2.5} emissions, which are correlated to DPM emissions, would be less than 1 pound per day during each day of the Project construction phases and the overall construction duration. As such, the Project's construction TAC emissions would result in less than significant potential short-term construction health risk impacts to sensitive receptors. Thus, construction of the Project would not expose sensitive receptors to substantial toxic air contaminant concentrations, and construction-related health impacts would be less than significant.

(b) Operational Impacts

The SCAQMD recommends that operational health risk assessments be conducted for substantial sources of operational 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.¹⁶⁵ Project operations would generate only minor amounts of diesel emissions from mobile sources, such as delivery trucks and occasional maintenance activities that would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. Furthermore, Project trucks would be required to comply with the applicable provisions of the CARB 13 CCR, Section 2025 (Truck and Bus regulation) to minimize and reduce PM and NO_x emissions from existing diesel trucks. Therefore, the Project operations would not be considered a substantial source of diesel particulates.

In addition, Project operations would only result in minimal emissions of toxic air contaminants from maintenance or other ongoing activities, such as from the use of architectural coatings and other products. Area sources that would generate TAC emissions include charbroiling activities associated with the restaurant uses and consumer products associated with re-applying architectural coatings and cleaning building surfaces. Charbroiling has the potential to generate small amounts of chemicals that are known or suspected by the State of California to cause human health impacts.

¹⁶⁴ California Air Pollution Control Officers Association, California Emissions Estimator Model Appendix: Appendix D: Default Data Tables, September 2016, page D- 77, http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2. Accessed October 2017.

¹⁶⁵ South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, August 2003, <http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobile-source-toxics-analysis.doc?sfvrsn=2>. Accessed July 2018.

However, restaurants incorporating charbroiling in the Air Basin would be required to comply with SCAQMD Rule 1138 (Control of Emissions from Restaurant Operations), which requires the installation of emissions controls on charbroilers. The emissions controls would minimize the already small amounts of TAC emissions associated with charbroiling (as seen in Table IV.B-12) by approximately 83 percent,¹⁶⁶ such that charbroiling would not cause or contribute to adverse health impacts at nearby sensitive receptors. The emergency generator would be required to comply with SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines), the purpose of which is to control and limit emissions of TACs from emergency generators and similar equipment. In accordance with Rule 1470, emissions from maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year. Furthermore, the emergency generator would be certified to the most stringent CARB and SCAQMD Rule 1470 standards and minimize emissions to the lowest technically feasible and regulatory required level for equipment of this size and type. As shown in Table IV.B-12, PM10 and PM2.5 emissions (i.e., DPM emissions) from the emergency generator would be approximately 0.1 pounds per day for only those periodic days in which maintenance and testing would occur. Compliance with Rule 1470 would ensure the TAC emissions from the emergency generator would not cause or contribute to adverse health impacts at nearby sensitive receptors. Therefore, the emissions would not pose a health risk to off-site receptors.

With respect to the use of consumer products and architectural coatings, the residential and retail uses associated with the Project would be expected to generate minimal emissions from these sources. The Project's land uses would not include installation of paint booths or require extensive use of commercial or household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any substantial amounts in conjunction with operation of the proposed land uses within the Project Site. Based on the uses expected on the Project Site, potential long-term operational impacts associated with the release of TACs would be minimal, regulated, and controlled, and would not be expected to exceed the SCAQMD numerical indicator of significance. Therefore, impacts would be less than significant. Thus, operation of the Project would not expose sensitive receptors to substantial toxic air contaminant concentrations and operational impacts would be less than significant.

(5) Summary of impacts regarding exposure to sensitive receptors.

The above analyses have evaluated the potential exposure of sensitive receptors to air quality pollutants emitted by the Project. **The analyses have shown that the Project's maximum localized emissions due to construction and operations would not**

¹⁶⁶ United States Environmental Protection Agency, Methods for Developing a National Emission Inventory for Commercial Cooking Processes: Technical Memorandum, 2003, http://www.ibrarian.net/navon/paper/METHODS_FOR_DEVELOPING_A_NATIONAL_EMISSION_INVENT.pdf?paperid=13615538. Accessed November 20, 2017.

exceed the localized numeric indicators for NOX, CO, PM10, and PM2.5. Further, the Project would not contribute to the formation of CO hotspots and no further CO analysis is required. Finally, neither the construction nor the operations of the Project would expose sensitive receptors to substantial toxic air contaminant concentrations, and construction-related health impacts would be less than significant. Therefore, the Project's impacts on exposure to sensitive receptors would be less than significant.

Threshold d) *Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? Less than Significant.*

As discussed in Section VI.6, *Effects Found Not to be Significant*, and in the Initial Study (Appendix A-2), the Project would not create objectionable odors affecting a substantial number of people and a less than significant impact would occur with respect to Threshold d). Preparation of the analyses for the above thresholds identified all applicable emissions other than odor that is pertinent to the Project's impacts. No further analysis is required.

e) Cumulative Impacts

The City has identified a number of related projects located in the Project Site area that have not yet been built or that are currently under construction. Since both the timing and the sequencing of the construction of the related projects are unknown, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. For this reason, the SCAQMD's recommended methodology for assessing a project's cumulative impacts differs from the cumulative impacts methodology employed elsewhere in this Draft EIR. The SCAQMD recommends using two different methodologies: (1) that project-specific air quality impacts be used to determine the project's potential cumulative impacts to regional air quality;¹⁶⁷ or (2) that a project's consistency with the current AQMP be used to determine its potential cumulative impacts.

As stated in the L.A. CEQA Thresholds Guide, the "City of Los Angeles has not adopted specific Citywide significance thresholds for air quality impacts. However, because of the SCAQMD's regulatory role in the air basin, this Thresholds Guide references the screening criteria, significance thresholds and analysis methodologies in the CEQA Air Quality Handbook to assist in evaluating projects proposed within the City."¹⁶⁸ The SCAQMD CEQA Air Quality Handbook states that the "Handbook is intended to provide

¹⁶⁷ South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, Appendix D, 1993, page D-3, <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4>. Accessed May 2018.

¹⁶⁸ City of Los Angeles, L.A. CEQA Thresholds Guide, 2006, p. B-1.

local governments, project proponents, and consultants who prepare environmental documents with guidance for analyzing and mitigating air quality impacts of projects.”¹⁶⁹ The SCAQMD CEQA Air Quality Handbook also states that “[f]rom an air quality perspective, the impact of a project is determined by examining the types and levels of emissions generated by the project and its impact on factors that affect air quality. As such, projects should be evaluated in terms of air pollution thresholds established by the District.”¹⁷⁰ The SCAQMD has also provided guidance on an acceptable approach to addressing the cumulative impacts issue for air quality as discussed below:¹⁷¹

“As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR... Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”

The City has determined to rely on thresholds established by the SCAQMD (refer to State CEQA Guidelines Section 15064.7) to assess the Project’s cumulative impacts. While it may be possible to add emissions from the list of related projects and the Project, it would not provide meaningful data for evaluating cumulative impacts under CEQA because neither the City nor the SCAQMD have established numerical thresholds applicable to the summation of multiple project emissions for comparison purposes. Additionally, regional emissions from a project have the potential to affect the Air Basin as a whole, and, unlike other environmental issues areas, such as aesthetics or noise, it is not possible to establish a geographical radius from a specific project site where potential cumulative impacts from regional emissions would be limited. Meteorological factors, such as wind, can disperse pollutants, often times tens of miles downwind from a project site. Therefore, consistent with accepted and established SCAQMD cumulative impact evaluation methodologies, the potential for the Project to results in cumulative impacts from regional emissions is assessed based on the SCAQMD thresholds.

(1) Project-Specific Impacts

The Project would result in the emission of criteria pollutants for which the region is in non-attainment during both construction and operation. Based on the project-specific level of emissions, the Project’s cumulative impacts would be potentially significant for construction due to regional NO_x emissions exceeding the numerical indicators of significance as shown in Table IV.B-8 for regional construction emissions during the one-

¹⁶⁹ South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993, p. iii.

¹⁷⁰ South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993, p. 6-1.

¹⁷¹ South Coast Air Quality Management District, Cumulative Impacts White Paper, Appendix D, <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4>. Accessed January 2018.

day continuous concrete pour phase. Therefore, mitigation measures are required, as further discussed below in Subsection 3.f), *Mitigation Measures*.

With implementation of mitigation measures, regional emissions from construction would be reduced to below the regional numeric indicators for NO_x. Therefore, cumulative impacts related to regional NO_x construction emissions would be less than significant after implementation of mitigation measures.

Regional and localized emissions from operations would be below the regional and localized numeric indicators and, therefore, cumulative impacts related to operational emissions would be less than significant.

(2) Consistency with Air Quality Management Plan

Additionally, the SCAQMD recommends assessing a project's cumulative impacts based on whether the project is consistent with the current AQMP. Section 15064(h)(3) of the State CEQA Guidelines provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

“A lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency...”

For purposes of the cumulative air quality analysis with respect to State CEQA Guidelines Section 15064(h)(3), the Project's cumulative air quality impacts are determined not to be significant based on its consistency with the SCAQMD's adopted 2016 AQMP, as discussed above.

As discussed above, the Project construction would incorporate emission reduction strategies, as applicable, consistent with the 2016 AQMP. Construction of the Project would comply with SCAQMD Rule 403 requirements and the ATCM to limit heavy duty diesel motor vehicle idling to no more than 5 minutes at any given time. In addition, the Project would require construction contractor(s) to comply with required and applicable BACT and the In-Use Off-Road Diesel Vehicle Regulation. As discussed above, during its construction phase, the Project would ensure compliance with CARB's requirements to minimize short-term emissions from on-road and off-road diesel equipment, SCAQMD's Rule 403 and Rule 1113, fleet rules to reduce on-road truck emissions (i.e., 13 CCR, Section 2025 (CARB Truck and Bus regulation)). Project's short-term and temporary construction jobs would be within the growth projections contained in the 2016

RTP/SCS upon which the 2016 AQMP was based. As such, Project construction would be consistent with the 2016 AQMP, and impacts with respect to AQMP consistency would be less than significant.

As is also discussed above (refer to Subsection 3.d)(1), *Air Quality Management Plan Consistency*, the Project's location, design, and proposed land uses would also be consistent with the 2016 AQMP. The 2016 AQMP includes transportation control strategies intended to reduce regional mobile source emissions that the Project would promote.¹⁷² The Project would locate residential, restaurant and retail uses in a TPA that would be located within a half-mile of multiple public transportation options, including the Pico Boulevard Station that serves two subway lines, the Expo Line and Blue Line, and the 7th Street/Metro Center Station that serves four rail lines, the Expo Line, Blue Line, Red Line and Purple Line, and provide further connection to transit lines serving Los Angeles by connecting to the Gold Line at Union Station. The Project would also be located within a half-mile of ten Metro bus routes (14, 28, 37, 70, 71, 76, 78, 79, 96 and 378), two Rapid Lines (770 and 728), one Foothill Transit Line (FT Silver Streak), one Santa Monica Transit Line (BBB10), and two LADOT Commuter Express Lines CE 431 and CE 437. The Project would provide access to on-site uses from existing pedestrian pathways. The Project's proximity to public transit would allow the Project's projected growth to be accommodated by existing transportation resources and decreases the time and cost of traveling as well as vehicular demand and associated pollutants. As is also discussed above, the Project's increase in population, housing, and employment would also be consistent with the 2016-2040 RTP/SCS growth projections, upon which the 2016 AQMP is based. Moreover, as discussed above, the Project's growth would occur on a site well-served by public transportation and in proximity to existing employment and commercial areas, which would minimize potential growth in transportation-related emissions.

As such, as the Project would be consistent with and would not conflict with or obstruct implementation of the 2016 AQMP. Therefore, the Project's cumulative impacts with respect to AQMP consistency would be less than significant.

f) Mitigation Measures

(1) Construction

A mitigation measure that would minimize the Project's construction emissions during the one-day continuous concrete pour phase has been identified, and is set forth below. This measure would reduce emissions from on-road and off-road heavy-duty vehicles and equipment and concrete truck emissions.

AQ-MM-1: The Applicant shall implement the following measures to reduce the

¹⁷² Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals.

emissions of air pollutants generated by concrete trucks during the continuous concrete pouring phase lasting for approximately one day:

- a. The contractor shall use concrete trucks with an average capacity of 10 cubic yards to minimize the number of concrete truck trips;
- b. The contractor shall use local concrete suppliers with 90 percent or more of the concrete supplied by one or more facilities located within a driving distance of approximately 4.5 miles per one-way trip (approximately 9 miles per round trip) and the remaining 10 percent from one or more facilities located within a driving distance of approximately 9 miles per one-way trip (approximately 18 miles per round trip).
- c. The contractor shall be required to ensure that approximately 50 percent of the concrete truck trips, equivalent to approximately 19 concrete trucks per hour, are made by CNG-fueled concrete trucks or trucks that achieve the same or lower NO_x emissions as CNG-fueled concrete trucks.
- d. During plan check, the Project representative shall make available to the lead agency and SCAQMD a comprehensive inventory of all concrete trucks that will be used during the continuous approximately one-day concrete pouring phase. The inventory shall include the concrete truck capacity, fuel specification, and NO_x emissions rating. A copy of each such unit's certified emissions rating shall be provided on-site at the time of mobilization of each applicable unit of equipment to allow the Construction Monitor to compare the on-site equipment with the inventory and certified emissions specification.

g) Level of Significance after Mitigation

(1) Construction

The Project's mitigated regional construction emissions are summarized in **Table IV.B- 13, *Estimated Maximum Mitigated Regional Construction Emissions***. Implementation of AQ-MM-1 would minimize regional NO_x emissions from the one-day continuous concrete pour phase to below the SCAQMD regional numeric indicators. Therefore, impacts related to regional NO_x construction emissions would be reduced to less than significant after implementation of mitigation measures. Project level regional construction impacts would be less than significant after implementation of mitigation measures, and the Project's contribution to cumulatively significant construction impacts to air quality would be less than significant for regional NO_x after implementation of mitigation measures.

TABLE IV.B-13
ESTIMATED MAXIMUM MITIGATED REGIONAL CONSTRUCTION EMISSIONS
(POUNDS PER DAY) ^a

Source	VOC	NO _x	CO ^b	SO ₂	PM10 ^c	PM2.5 ^c
Overlapping Phases						
Demolition + Site Preparation + Grading/Excavation	2	27	48	<1	3	1
Grading/Excavation + Drainage/Utilities/Trenching + Foundations	8	96	75	<1	13	5
Continuous Concrete Pour	7	95	103	<1	10	4
Foundations/Concrete Pour + Building Construction + Architectural Coatings	16	22	66	<1	15	4
Foundations/Concrete Pour + Building Construction + Architectural Coatings	15	19	62	<1	14	4
Building Construction + Architectural Coatings + Pavings	13	15	49	<1	11	3
Maximum Daily Emissions	16	96	103	<1	15	5
SCAQMD Numeric Indicators	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C of this Draft EIR.

^b CO emissions for multiple phases may be higher after mitigation due to Tier 4 Final CO emission factors from CalEEMod being higher than the unmitigated vehicle CO emissions factors.

^c Emissions include fugitive dust control measures consistent with SCAQMD Rule 403. Rule 403 measures included in the CalEEMod emissions modeling include the application of water to exposed and unpaved surfaces three times daily and limiting vehicle speeds to 15 miles per hour on unpaved roads.

SOURCE: ESA, 2018.

As shown above in Table IV.B-11, localized construction emissions would be less than significant, and no mitigation measures are required for localized impacts. With implementation of feasible mitigation, regional emissions from construction would be reduced to below the regional numeric indicator for NO_x during the one-day continuous concrete pour phase, and the short-term and temporary impacts related to regional NO_x construction emissions would be less than significant.

(2) Operation

Project-level and cumulative impacts related to GMG emissions would be less than significant. No mitigation measures are required.

(3) Toxic Air Contaminants

Not applicable as impacts are less than significant without mitigation.

IV.C Cultural Resources

1. Introduction

This section provides an assessment of potential impacts to cultural resources (including archaeological and historic architectural resources) that could result from implementation of the Project. The analysis in this section is based on a *Phase I Cultural Resources Assessment Report*, dated July 2018, and included as Appendix D of this Draft EIR.

Tribal cultural resources are addressed separately in Section IV.N, *Tribal Cultural Resources* of this Draft EIR. In addition, paleontological resources, i.e., fossilized remains, traces, or imprints of organisms preserved in or on the earth's crust, which are not associated with past human activity, are analyzed in Section IV.E, *Geology and Soils - Paleontology*, of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

There are laws and regulations at the federal, state, and local levels that address cultural resources. These relevant regulations are described below.

(1) Federal

(a) *National Register of Historic Places*

The National Register was established by the National Historic Preservation Act (NHPA) of 1966, as “an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment”.^{1,2} The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the National Register is considered “historic property” under Section 106 of the NHPA.

¹ 36 Code of Federal Regulations (CFR) 60.2

² United States Department of the Interior, 2002. National Register Bulletin: How to Apply the National Register Criteria for Evaluation. National Park Service, Washington, D.C.

(i) Criteria

To be eligible for listing in the National Register, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

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

(ii) Context

To be eligible for listing in the National Register, a property must be significant within a historic context. National Register Bulletin #15 states that the significance of a historic property can be judged only when it is evaluated within its historic context. Historic contexts are “those patterns, themes, or trends in history by which a specific...property or site is understood and its meaning... is made clear.”³ A property must represent an important aspect of the area’s history or prehistory and possess the requisite integrity to qualify for the National Register.

(iii) Integrity

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as “the ability of a property to convey its significance”.⁴ The National Register recognizes seven qualities that, in various combinations, define integrity. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

(iv) Criteria Considerations

Certain types of properties, including religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered

³ United States Department of the Interior, National Register Bulletin #15: How to Apply the National Register Criteria for Evaluation, 1997, pages 7 and 8.

⁴ United States Department of the Interior, 2002. National Register Bulletin: How to Apply the National Register Criteria for Evaluation. National Park Service, Washington, D.C.

eligible for the National Register unless they meet one of the seven categories of Criteria Consideration A through G, in addition to meeting at least one of the four significance criteria discussed above, and possess integrity as defined above.⁵ Criteria Consideration G states that "a property achieving significance within the last 50 years is eligible if it is of exceptional importance". This is intended to prevent the listing of properties for which insufficient time may have passed to allow the proper evaluation of its historical importance.⁶

(2) State

(a) *California Environmental Quality Act*

The California Environmental Quality Act (CEQA) is the principal statute governing environmental review of projects occurring in the state and is codified at Public Resources Code (PRC) Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources. Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

The CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and Section 15064.5 of the CEQA Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of PRC Section 21083, if it meets the criteria of a unique archaeological resource. As defined in PRC Section 21083.2 a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

⁵ United States Department of the Interior, 2002

⁶ United States Department of the Interior, National Register Bulletin #15, page 41.

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in PRC Section 21083.2, then the site is to be treated in accordance with the provisions of PRC Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place.⁷ If preservation in place is not feasible, mitigation measures shall be required. The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment.⁸

A significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5(a). Substantial adverse change is defined as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired”.⁹ According to CEQA Guidelines Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

- A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

⁷ Public Resources Code Section 21083.1(a), http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC§ionNum=21083.2. Accessed August 12, 2019.

⁸ CEQA Guidelines Section 15064.5(c)(4)

⁹ CEQA Guidelines Section 15064.5(b)(1)

In general, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Standards)¹⁰ is considered to have mitigated its impacts to historical resources to a less-than-significant level.¹¹ In effect, CEQA has a "safe harbor" by providing either a categorical exemption or a negative declaration for a project which meets the Standards.¹²

(b) California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."¹³ The criteria for eligibility for the California Register are based upon National Register criteria.¹⁴ Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

¹⁰ Weeks and Grimer, 2017.

¹¹ CEQA Guidelines Section 15064.5(b)(3)

¹² CEQA Guidelines Section 15331 and 15064.5(b)(3)

¹³ Public Resources Code, Section 5024.1[a].

http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC§ionNum=5024.1. Accessed August 12, 2019.

¹⁴ Public Resources Code, Section 5024.1[b]

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the State Office of Historic Preservation (OHP) and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

(c) *Human Remains*

(i) *California Health and Safety Code*

California Health and Safety Code sections 7050.5, 7051, and 7054 address the illegality of interference with human burial remains (except as allowed under applicable sections of the Public Resource Code), and the disposition of Native American burials in archaeological sites. These regulations protect such remains from disturbance, vandalism, or inadvertent destruction, and establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including treatment of the remains prior to, during, and after evaluation, and reburial procedures. California PRC Section 5097.98, as amended by Assembly Bill 2641, protects cultural resources on public lands and provides procedures in the event human remains of Native American origin are discovered during project implementation. PRC Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. PRC Section 5097.98 further requires the Native American Heritage Commission (NAHC), upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours from the time of being granted

access to the site by the landowner to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

(3) Local

(a) *City of Los Angeles Cultural Heritage Ordinance*

The City has enacted a Cultural Heritage Ordinance, most recently amended in April 2018, which defines Historic-Cultural Monuments (HCM).¹⁵ These HCMs are regulated by the City's Cultural Heritage Commission and the City Council.

(b) *Los Angeles Cultural Heritage Ordinance Eligibility Criteria*

The Cultural Heritage Ordinance establishes criteria for designating a local historical resource as an HCM.¹⁶ An HCM is any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City, including historic structures or sites:

- In which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified; or
- Which is identified with historic personages or with important events in the main currents of national, State or local history; or
- Which embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style or method of construction; or
- Which is a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

A proposed resource may be eligible for designation if it meets at least one of the criteria above.

When determining historic significance and evaluating a resource against the Cultural Heritage Ordinance criteria above, the Cultural Heritage Commission and the staff of the Office of Historic Resources often ask the following questions:

- Is the site or structure an outstanding example of past architectural styles or craftsmanship?
- Was the site or structure created by a "master" architect, builder, or designer?

¹⁵ Ordinance No. 185472.

¹⁶ Los Angeles Administrative Code, Chapter 9, Division 22, Article 1, Section 22.171.7

- Did the architect, engineer, or owner have historical associations that either influenced architecture in the City or had a role in the development or history of Los Angeles?
- Has the building retained “integrity”? Does it still convey its historic significance through the retention of its original design and materials?
- Is the site or structure associated with important historic events or historic personages that shaped the growth, development, or evolution of Los Angeles or its communities?
- Is the site or structure associated with important movements or trends that shaped the social and cultural history of Los Angeles or its communities?¹⁷

With regard to integrity, the seven aspects of integrity of the National Register and California Register are the same and the threshold of integrity for individual eligibility is similar. However, the threshold of integrity for Historic Preservation Overlay Zones (HPOZs) is lower; a contributing structure in an HPOZ is a building that was constructed during the predominant period of development in the neighborhood and that has retained most of its historic features.

(c) *SurveyLA Eligibility Standards*

SurveyLA is a citywide survey that identifies and documents potentially significant historic resources representing important themes in the City’s history. The survey and resource evaluations were completed by consultant teams under contract to the City and under the supervision of the Department of City Planning’s Office of Historic Resources (OHR). The program was managed by the OHR, which maintains a website for SurveyLA. The field surveys cumulatively covered broad period of significance, from approximately 1850 to 1980 depending on the location, and included individual resources such as buildings, structures, objects, natural features and cultural landscapes as well as areas and districts (archaeological resources are planned to be included in future survey phases). The survey identified a wide variety potentially significant resources that reflect important themes in the City’s growth and development in various areas including architecture, city planning, social history, ethnic heritage, politics, industry, transportation, commerce, entertainment, and others. Field surveys, conducted from 2010-2017, were completed in three phases by Community Plan Area. All tools and methods developed for SurveyLA were created to meet state and federal professional standards for survey work.

Los Angeles’ citywide Historic Context Statement (HCS) was designed for use by SurveyLA field surveyors and by all agencies, organizations, and professionals completing historic resources surveys in the City of Los Angeles. The context statement was organized using the Multiple Property Documentation (MPD) format developed by the National Park Service (NPS) for use in nominating properties to the National Register. This format provided a consistent framework for evaluating historic resources. It was adapted for local use to evaluate the eligibility of properties for city, state, and federal

¹⁷ City of Los Angeles Office of Historic Preservation, “What Makes a Resource Historically Significant?”, <http://preservation.lacity.org/commission/what-makes-resource-historically-significant>. Accessed July 7, 2013.

designation programs. The HCS used Eligibility Standards to identify the character defining, associative features and integrity aspects a property must retain to be a significant example of a type within a defined theme. Eligibility Standards also indicated the general geographic location, area of significance, applicable criteria, and period of significance associated with that type. These Eligibility Standards are guidelines based on knowledge of known significant examples of property types; properties do not need to meet all of Eligibility Standards in order to be eligible. Moreover, there are many variables to consider in assessing integrity depending on why a resource is significant under the National Register, California Register or City of Los Angeles HCM eligibility criteria.

(d) *General Plan Conservation Element*

The City of Los Angeles's General Plan Conservation Element (Conservation Element), Chapter II, Section 3, defers to the State CEQA Guidelines in regard to the identification, evaluation, and mitigation of impacts on archaeological resources. The Conservation Element states that the City has primary responsibility for protecting significant archaeological resources. Furthermore, if it is determined that a development project may disrupt or damage an archaeological site, the project is required to provide mitigation measures to protect the site or enable study and documentation of the site, including funding of the study by the Applicant. The City's environmental guidelines require the Applicant to secure services of a qualified archaeologist to monitor excavations or other subsurface activities associated with a development project in which all or a portion is deemed to be of archaeological significance. Discovery of archaeological materials may temporarily halt the project until the site has been assessed, potential impacts evaluated and, if deemed appropriate, the resources protected, documented, and/or removed.¹⁸

The Conservation Element lists the following objective and policy for archaeological and paleontological resources:

Objective: Protect the City's archaeological and paleontological resources for historical, cultural, research, and/or educational purposes.

Policy: Continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition or property modification activities.

b) Existing Conditions

The following setting information is addressed in greater detail in the *Phase I Cultural Resources Assessment Report* included as Appendix D, of this Draft EIR.

The term "Cultural Resources" refers to remains and sites associated with human activities and can include: prehistoric and historic-period archaeological resources; historic architectural/built environment resources; human remains; and places important to Native Americans and other ethnic groups, including elements or areas of the natural

¹⁸ City of Los Angeles General Plan Conservation Element, Chapter II, Section 3, adopted September 2001, pages II-3 through II-6.

landscape which have traditional cultural significance. Cultural resources with tribal cultural significance are addressed in Section IV.N, *Tribal Cultural Resources*, of this Draft EIR. For the purposes of this analysis, cultural resources are categorized into the following groups: archaeological resources; historical architectural (i.e., the historic built environment) resources; places important to Native Americans (addressed further in Section IV.N); and human remains.

(a) *Geologic Context*

The Project is located in a relatively flat area of the western Los Angeles Basin. Currently, the Project Site, like most of the downtown area, is fully developed. A geotechnical study prepared in support of the Project indicates that the Project Site is likely underlain by disturbed soil/fill to approximately 7 to 9.5 feet in depth, overlying alluvium. The artificial fill as described ranged from a clayey sand to a silty sand with gravels. The compaction of these soils ranged from loose to very stiff and all samples were moist. Below the artificial fill is the Holocene-aged younger Quaternary alluvium. Beneath the younger alluvium, the Project Site is underlain by Pleistocene-aged older Quaternary Alluvium and the Pliocene-aged Fernando Formation. The depth at which younger alluvium transitions to older alluvium has not been determined in the Project Site.

(b) *Existing Development on the Project Site*

The Project Site is developed with five buildings and paved surface parking areas. Four of the buildings on the Project Site were developed in the 1910s that were catered to automobile uses. Building A (1057 South Olive Street), Building B (1053-55 South Olive Street), Building C (1047-49 South Olive Street), and Building D (1045-33 South Olive Street), were utilized as automobile dealerships, repair shops, and garages. Building E (behind Building D), was an ancillary building for Building D and was a later addition and was not associated with the automobile industry. Given these past uses, and in accordance with SurveyLA Eligibility Standards, the following relevant themes identified by SurveyLA have been examined to provide a context for evaluation of the existing buildings on the Project Site and their potential to qualify as historical resources: Commercial Development and the Automobile (1910-1980), subtheme: The Car and Car Services, (1910-1960), and property subtypes Car Repair and Car Showroom. Although summarized here, further discussion of these themes can be found in the *Phase I Cultural Resources Assessment Report* included as Appendix D of this Draft EIR.

(c) *Cultural Resources within the Project Area*

(i) *Archival Research*

(a) South Central Coastal Information Center Records Search

A records search for the Project Site was conducted on December 7, 2017 at the California Historical Resources Information System South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The records search included a review of previous cultural resources studies and previously-recorded cultural

resources, including archaeological resources, within the Project Site and a 0.5-mile radius, and historic-period architectural resources within the Project Site and a 0.25-mile radius.

Specific inventories and databases reviewed at the SCCIC include the National Register and its annual updates, the California Register, and the statewide Historic Resource Inventory (HRI) database maintained by the OHP.

The records search results indicate that 34 cultural resources studies have been conducted within a 0.5-mile radius of the Project Site, with approximately 44 percent of the search area having been subject to surveys and studies. Of the 34 previous studies, two overlap with portions of the Project Site. One (LAN-12584) is a consultation letter with the State Historic Preservation Officers (SHPO) to initiate consultation regarding the restoration of historic streetcar service (this study does not include the results of the study or recordation of any resources). The other (LA-13239), titled *Extent of Zanja Madre*, includes maps indicating that a segment of the *Zanja* (Zanja No. 8) is located adjacent to and west of the Project Site in the approximate location of the public alley adjacent to the Project Site.

The SCCIC records search results indicate that no archaeological resources have been previously identified within the Project Site or within the 0.5-mile records search radius, although study LA-13239 indicates that a segment of the *Zanja* No.8 occurs adjacent to the Project Site. The records search also shows that, while no historic-period architectural resources have been previously recorded within the Project Site itself, a total of 10 architectural resources have been previously recorded within the 0.25-mile records search buffer. All 10 architectural resources are buildings. Six (P-19-166999, -167316, -173175, -173178, -173179, and -187003) have been recommended eligible for listing in the National Register, one (P-19-187866) has been demolished, and three (P-19-188478, -188904, and 189239) have been recommended or determined as ineligible for the National Register.

(b) Previously Recorded Historic Architectural Resources

A review of the National Register, California Register, the City of Los Angeles's HRI, and the SurveyLA database was completed to compile a list of previously recorded historic architectural resources within 0.25-mile of the Project Site. These include the Broadway Theater and Commercial District as well as the California Mart District, and includes individual built resources discussed above under the SCCIC records search results. Detailed descriptions of the districts can be found in the *Phase I Cultural Resources Assessment Report* included as Appendix D of this Draft EIR.

(ii) Additional Research

(a) Historic Map and Aerial Review

Historic maps and aerial photographs were reviewed to understand the previous uses of the Project Site and changes to the current improvements over time. The commercial

buildings that are currently present within the Project Site do not contain basements based on the survey maps, historic Sanborn maps, and building permits. It is possible that the construction of these buildings would not have destroyed any subsurface remnants such as building foundations, privies, and refuse deposits associated with the residential dwellings that were constructed on the Project Site in the late 19th century, prior to the current development on-site.

(b) Native American Outreach

The NAHC maintains a confidential Sacred Lands File (SLF) which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on November 16, 2017 to request a search of the SLF for the Project Site. The NAHC responded to the request in a letter dated November 17, 2017. The letter states that the SLF search did not indicate the presence of Native American cultural resources within or adjacent to the Project Site.

(c) *Zanja* No. 8

As noted above, the SCCIC records search results indicate that a segment of the *Zanja* No.8 occurs adjacent to the Project Site. Because of the relevance of the *Zanja* No. 8, additional research regarding this resource was performed. As there are no surface indications for the majority of the *Zanja* system, data is reliant on over 100-year old historic maps and records, as well as projects which have encountered it during ground disturbance. The entire *Zanja* system has been mapped and put on file with the SCCIC. However, the map used to create the file may not be the most accurate or best map available for certain areas, so additional research is generally needed to confirm or supplement this information. Site records from the SCCIC indicate that the system has been encountered up to a dozen times throughout the downtown area including several areas within Chinatown and Little Tokyo. The various lines of the *Zanja* system have been represented in the historical record as above ground decorative open trenches, cement pipes, brick conduits, and wrought iron pipes, in various locations. It has been recorded just below the surface of sidewalks and pavement and up to 15-feet in depth below grade. An early mapping of the City depicts *Zanja* No. 8 in the alley to the west of the Project Site boundary, however, the level of accuracy of this map is currently unknown.¹⁹

In the 1850s, the development of orchards and vineyards located to the south of Seventh Street between Los Angeles and Figueroa Streets created a need for additional irrigation. This need was met with the construction of a new branch off the *Zanja Madre*, which was eventually referred to as *Zanja* No. 8. The alignment has been described as being near the Project Site per the following, "It [*Zanja* No. 8] was diverted [from the *Zanja Madre*] south of Requesena Street...it cut across to the southeast corner of Fifth and Olive Streets, from there it entered Pershing Square and ran along Olive Street, across Sixth, and on

¹⁹ H.J. Stevenson, United States Department Surveyor, Map of the City of Los Angeles, 1884.

south to Sixteenth and Main Streets, irrigating the orchards of...O.W. Childs.”²⁰ By 1888, *Zanja* No. 8 was a 16-inch cement pipe extending from the end of the *Zanja Madre*, and was 8300-feet in length, and at that time joined *Zanja* No. 8-R at its southern terminus.²¹ A tract map from the 1890s depicts *Zanja* No. 8, which is noted as a “ditch” on land records of the Project Site and vicinity.²² This information supplements the former location of *Zanja* No. 8 as being situated west of the Property Site boundary within what appears to now be the midblock alley.

(i) *Pedestrian Survey*

The Project Site was surveyed for archaeological and architectural resources on December 12, 2017. Survey methods followed established state guidelines for recording historical resources²³ and the City’s SurveyLA survey methods. Specifically, the survey was designed to: (1) identify evidence of archaeological resources within the Project Site, particularly in areas with visible ground surface, (2) identify and record potentially eligible buildings and structures within the Project Site, and (3) document evidence of past disturbances associated with any previous development. The broader vicinity of the Project Site was examined as well to determine the potential for indirect impacts to the known historic architectural resources identified through the records search.

The Project Site consists of five parcels (APNs 5139-010-001, 5139-010-011, 5139-010-010, 5139-010-002 and 5139-010-004) located at the northwest corner of Olive and 11th Streets in Downtown Los Angeles. The developed areas of Project Site were subject to a reconnaissance-level survey and the landscaped surfaces were intensively inspected for the presence of archaeological materials. The western portion of the Project Site, which includes the present alley, was inspected for evidence of *Zanja* No.8, which as stated has been documented as having existed in that area. The alley has been recently repaved and there was no surface evidence of the *Zanja* No. 8 visible. No surface evidence of archaeological resources was identified as a result of the survey.

The five buildings located on the Project Site (Building A, Building B, Building C, Building D, and Building E) were documented as a result of the survey. The resources are vernacular commercial buildings constructed between 1910 and 1945, according to Los Angeles County Assessor records. The resources were evaluated according the historic context developed for the Project, and all were recommended ineligible for listing in the California Register and the National Register, and as an HCM under the City’s Cultural Heritage Ordinance. Detailed descriptions and significance evaluations of these resources are provided in the *Phase I Cultural Resources Assessment Report* included

²⁰ Layne, J. Gregg, 1952. *Water and Power for a Great City. A History of the Department of Water & Power of the City of Los Angeles to December, 1950.* Los Angeles, California

²¹ Hall, William, 1888. *Irrigation in California [Southern], the Field, Water-Supply, and Works, Organization and Operation in San Diego, San Bernardino, and Los Angeles Counties* Chapter XXIII-Los Angeles pp.535-570.

²² Hansen, George, 1892. *Tract Map.* Los Angeles County Miscellaneous Record Book 43, pg. 74

²³ State Office of Historic Preservation (OHP), *California State Law and Historic Preservation, Statutes, Regulations & Administrative Policies Regarding the Preservation & Projection of Cultural & Historical Resources*, 1999, <http://ohp.parks.ca.gov/pages/1069/files/10%20comb.pdf>.

as Appendix D of this Draft EIR. Due to the density of intervening development in this urban area, it was also determined that the Project would have no potential for indirect impacts to any of the identified historical resources in the 0.25-mile buffer beyond the immediate vicinity of the Project Site so the study area was kept to the 0.25-mile radius.

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to cultural resources, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as well as the applicable State CEQA Guidelines that directly pertain to cultural resources as its thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, a project would have a significant impact related to cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;***
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or***
- c) Disturb any human remains including those interred outside of dedicated cemeteries.***

Section 15064.5(b)(1) of the State CEQA Guidelines provides that a project may cause a significant environmental effect where the project could result in a substantial adverse change in the significance of a historical resource.²⁴ CEQA Guidelines Section 15064.5 defines a "substantial adverse change" in the significance of a historical resource to mean physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be "materially impaired".

Section 15064.5(b)(2) of the CEQA Guidelines (defines "materially impaired" for purposes of the definition of "substantial adverse change" as follows:

The significance of a historical resource is materially impaired when a project:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to PRC

²⁴ Public Resources Code, Section 21084.1. http://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC§ionNum=21084.1. Accessed August 12, 2019.

Section 5020.1(k) or its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g), unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

In accordance with Section 15064.5(b)(3) of the CEQA Guidelines, a project that would have a potential material impact on a historic resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings is considered to have mitigated impacts on historic resources to a less than significant level.

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate cultural resources:

Historical Resources

A Project would have a significant impact if a substantial adverse change in historic significance occurs due to any of the following:

- Demolition of a significant resource;
- Relocation that does not maintain the integrity and significance of a significant resource;
- Conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Standards); or
- Construction that reduces the integrity or significance of important resources on the site or in the vicinity.²⁵

Archaeological Resources

A project would normally have a significant impact upon archeological resources if it would disturb, damage, or degrade an archeological resources or its setting that is found to be important under the criteria of CEQA because it:

- Is associated with an event or person of recognized importance in California or American prehistory or of recognized scientific importance in prehistory;

²⁵ Los Angeles CEQA Thresholds Guide, Section D.3. Historical Resources, City of Los Angeles, 2006, page D.3- 1.

- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;
- Has a special or particular quality, such as the oldest, best, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods.

b) Methodology

(1) Historic Architectural Resources

The analysis of impacts to historic architectural resources is based on the *Phase I Cultural Resources Assessment Report* (Appendix D) prepared by qualified personnel who meet or exceed the Secretary of the Interior's Professional Qualification Standards in history and architectural history. Key steps in completing the assessment included a review of the existing properties within the Project Site, archival research, and field documentation. Research into the Project Site's development history included a review of historic permits for improvements to the property, Sanborn Fire Insurance maps, historic photographs, aerial photos, and local histories. The California State Historic Resources Inventory for Los Angeles County, records housed at the SCCIC, and SurveyLA Eligibility findings were consulted to identify any previous evaluations of the Project Site and potential historic resources within a 0.25-mile radius of the property.

Under CEQA, the evaluation of impacts to historic resources consists of a two-part inquiry: (1) a determination of whether the Project Site contains or is adjacent to any historic resources that may be impacted by the Project; and, if any such resources exist, (2) a determination of whether the Project would result in a "substantial adverse change" to the significance of any such resources.

(2) Archaeological Resources

The analysis of impacts to archaeological resources is also based on the Phase I Cultural Resources Assessment Report, which included: (1) a cultural resource records search conducted at the SCCIC to review recorded archaeological resources within a quarter mile radius of Project Site, as well as a review of cultural resource reports and historic topographic maps on file, (2) a review of the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the California Register, the National Register, and the California State HRI listings, (3) an SLF search commissioned through the NAHC, (4) a review of available Sanborn Maps, historic aerial imagery; and other technical studies, and (5) a pedestrian survey of the Project Site.

The potential for the Project Site to contain buried archaeological resources is assessed based on the findings of the cultural resource records search (i.e., presence and proximity

of known resources) and SLF search, land use history research, subsurface geological conditions, and the proposed excavation parameters for the Project.

(3) Human Remains

The analysis of impacts to human remains is based on the Phase I Cultural Resources Assessment Report. The potential for the Project Site to contain human remains was assessed based on the findings of the cultural resource records search (i.e., presence and proximity of known resources), the SLF search, land use history research, subsurface geological conditions, and the proposed excavation parameters for the Project.

c) Project Characteristics

No specific Project Design Features are proposed with regard to cultural resources.

d) Analysis of Project Impacts

Threshold a) *Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? Less than Significant Impact with Mitigation.*

(a) Direct Impacts

Building A, Building B, Building C, Building D, and Building E are the only extant buildings on the Project Site. All were constructed more than 45 years ago, meaning they meet the general age requirement to qualify as historical resources. As such, the buildings were evaluated for eligibility for listing under the National Register, California Register, and local ordinances. As discussed under Section 2.b, *Existing Conditions*, above, the buildings were evaluated against the following themes in accordance with the SurveyLA historic context statement and surveys: Commercial Development and the Automobile (1910-1980); subtheme: The Car and Car Services, (1910-1960), and property subtypes Car Repair and Car Showroom. Based on the evaluation, the Buildings are determined to be ineligible for listing in the National Register, California Register, and Los Angeles HCM. The buildings do not represent significant examples of their type and have been altered substantially since they were first built such that they no longer materially convey their original uses. As such, the buildings do not qualify as historical resources under CEQA Guidelines Section 15064.5(a)(1) or (2), and do not warrant consideration under CEQA Guidelines Section 15064.5(a)(3). Accordingly, no further analysis of direct impacts on historic architectural resources qualifying as historical resources is required pursuant to CEQA.

While no archaeological resources are documented within the Project Site, *Zanja* No. 8 is depicted on maps as described above, adjacent to the west side of the Project Site, potentially within the public mid-block alley. This resource therefore may be preserved under the alley pavement in a location where it could be encountered during off-site improvements in the vicinity of the Project Site, such as utility, sidewalk, and alley

improvements, and the construction of the proposed ingress and egress points to the Project Site from the alley. For the purposes of this Project, the City of Los Angeles is treating the *Zanja* No. 8 as a historical resource under CEQA Guidelines Section 15064.5(a)(3).

There is also the potential for subsurface archaeological materials to be encountered during Project-related excavation. As described above regarding the prehistoric context of the Project Site, the exact location of the ethnographic and prehistoric village of *Yaangna* has long been debated, and likely moved seasonally and over time as the rivers and springs changed and shifted, and resource availability changed. The current banks of the Los Angeles River are less than two miles from the Project Site, and the river was heavily exploited by prehistoric peoples over time and seasonally. Given these facts, there is potential for encountering subsurface prehistoric archaeological resources at the Project Site, particularly during ground disturbing activities associated with construction. Although the Project Site has been subjected to nearly two centuries of subsequent residential and urban development, this development would not necessarily have disturbed buried prehistoric sites, which may remain buried under the development itself, or within historic-period fill. Project construction would also result in deeper excavation, to approximately 64 feet below the ground's surface, than any of the prior documented residential and single-story commercial uses on the Project Site. Furthermore, as described in the historic context, the residential development originally located on the Project Site may have left in place remains of building foundations and associated features such as trash deposits, privies, wells, and other outbuildings which could be capped beneath the current buildings and paved parking lot. The presence of brick and other materials seen in the upper layers of sediment on the Project Site, as encountered during geotechnical testing, indicate the possibility that archaeological materials could be present within the subsurface of the Project Site. Any archaeological resources encountered during Project-related ground disturbing activities, including both prehistoric and historic-period resources, have the potential to qualify as historical resources under CEQA. **As a result of the potential existence of unknown archaeological resources under the Project Site that may qualify as historical resources, the Project has the potential to cause a substantial adverse change in the significance of a historical resource on the Project Site, as defined in Section 15064.5, during ground disturbing activities associated with construction.**

Three mitigation measures are proposed to address potential impacts to archaeological resources or archaeological resources that are historical resources under CEQA. Mitigation measure CULT-MM-1 requires the Applicant to retain a Qualified Archaeologist to monitor all ground-disturbing activities. Mitigation measure CULT-MM-2 requires ground-disturbing activities to be halted or diverted in the event of the discovery of archaeological resources, and coordination to take place between the Applicant and City regarding their disposition. Mitigation measure CULT-MM-3 requires the Qualified

archaeologist to prepare a monitoring report and California Department of Parks and Recreation (DPR 523) Forms documenting resources found.²⁶

Additionally, two mitigation measures are proposed to address potential impacts to the *Zanja* water conveyance system. If the resource is encountered, mitigation measure CULT-MM-4 requires a Qualified Archaeologist to halt construction activities within an exclusion area until defined by the Qualified Archaeologist in consultation with the City until a formal treatment plan is developed in consultation with the Applicant and the City's Office of Historic Resource and can be implemented for the resource. Mitigation measure CULT-MM-5 requires a final report and appropriate DPR 523 Site Forms documenting the *Zanja* resource.

With implementation of these mitigation measures, the Project's direct potential impacts on historical resources would be reduced to a less than significant level.

(b) Indirect Impacts

Indirect impacts were analyzed to determine if the Project would result in a substantial adverse change in the significance of adjacent or nearby historical resources (i.e., buildings identified as potentially eligible in a survey, determined eligible, or listed as eligible), primarily through alteration of the immediate surroundings of the buildings such that their significance as historical resources would be materially impaired pursuant to the terms CEQA Guidelines Section 15064.5(b)(1). For example, indirect impacts may occur when a project is constructed adjacent to a historical resource in a manner that causes that resource's historic setting to be altered, if that setting contributes to the eligibility of the resource and the change results in a substantial adverse change in the significance of the historic resource. Additionally, indirect impacts may occur if a project obstructs historically or architecturally significant primary views to and from an adjacent resource that contribute to its eligibility as a historical resource, or causes harmful construction vibration or noise to an adjacent resource in a manner that would cause a CEQA-defined material impairment. Indirect impacts could also occur if a new project is incompatible in scale, massing, materials or design with an adjacent historical resource such that the historical resource's eligibility is substantially impaired.

Six historical resources determined eligible for the California Register and National Register were identified in the immediate vicinity of the Project Site, within the area bounded by Grand Avenue to the northwest, West Olympic Boulevard to the northeast, South Hill Street to the southeast, and West 12th Street to the southwest. These include resources within the Broadway Theater and Commercial District, and the California Mart District. However, none of these resources are adjacent to the Project Site and none would be physically affected by the Project. Furthermore, none of these resources would

²⁶ DPR 523 forms are a series of forms managed as part of the California Historical Information System (CHRIS) through the California Office of Historic Preservation (OHP), and are used to record and evaluate resources, as well as nominate properties for California Historical Landmarks, Points of Historical Interest and Register of Historical Resources. Forms can be accessed at the following website: http://ohp.parks.ca.gov/?page_id=28351.

be close enough to be affected by construction vibration or noise which is analyzed in Section IV.J, *Noise*, of this Draft EIR. While the Project's scale and massing would introduce a new prominent visual element in the Project vicinity, the Project is not adjacent to any historic architectural resources that qualify as historical resources, and the Project's location, design, scale and massing would not affect the visual prominence or historic character, or interrupt important views, of any off-site resources, as described in the *Phase I Cultural Resources Assessment Report* included as Appendix D of this Draft EIR.

Furthermore, the existing built environment in the Project vicinity has been substantially altered by demolition, redevelopment and infill construction. These changes to the area's built environment have materially altered the original historic setting to the extent that neither the Project Site in its present state nor the surrounding built environment are associated with any identified historical resources and do not contribute to their eligibility.

The Project would not cause an indirect substantial adverse change in the significance of a historical resource, as defined in Section 15064.5. **The Project would have less than significant indirect impacts on historical resources.**

Threshold b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? Less than Significant Impact with Mitigation.

Archaeological resources not qualifying as historical resources under CEQA shall be considered for their potential to qualify as unique archaeological resources. Review of previous investigations in the vicinity of the Project Site, as well as review of the prehistoric context for the area, provides an understanding of the potential for encountering prehistoric archaeological resources in the Project Site during Project construction. When completing analysis of subsurface archaeological site sensitivity, important factors to consider include elevation, soil conditions, proximity to water, proximity to raw materials, and ethnographic and historic information. It is also necessary to evaluate the historic land use and past development and disturbances on the Project Site in determining the possibility for the preservation of subsurface prehistoric archaeological materials.

As discussed above under Threshold (a), there is potential for the Project site to contain subsurface archaeological resources. Archaeological deposits are frequently located in relatively close proximity to water sources (such as the Los Angeles River, located 1.85-miles west of the Project Site) and these deposits could contain human remains could qualify as unique archaeological resources under CEQA. These could include both prehistoric archaeological resources as well as historic-period resources related to previous residential use of the Project site. In addition, *Zanja* No. 8 is also depicted on maps as adjacent to the west side of the Project Site, potentially within the mid-block alley. For the purposes of this Project, the City of Los Angeles is treating the *Zanja* No. 8 as a historical resource under CEQA Guidelines Section 15064.5(a)(3) - however, it

might also qualify as a unique archaeological resource as defined in 21083.2. **As a result, the Project has the potential to cause a substantial adverse change in the significance of an archaeological resource on the Project Site, as defined in Section 15064.5.**

As discussed above, three mitigation measures, CULT-MM-1, CULT-MM-2, and CULT-MM-3, are required to address potential impacts to currently unknown archaeological resources that might be encountered during Project construction ground-disturbing activity. In addition, two mitigation measures, CULT-MM-4 and CULT-MM-5, are required to specifically address potential impacts to the *Zanja* conveyance system, if evidence of the resource is found.

With implementation of these mitigation measures, potential Project impacts on archaeological resources would be reduced to a less than significant level.

Threshold c) Would the Project disturb any human remains including those interred outside of dedicated cemeteries? Less than Significant Impact.

No human remains were identified during the pedestrian survey of the Project Site and no known human remains have been recorded within the Project Site or a 0.50-mile radius. Archaeological deposits are frequently located in relatively close proximity to water sources (such as the Los Angeles River, located 1.85-miles west of the Project Site) and these deposits could contain human remains. Therefore, some potential for the presence of human remains may exist.

However, the Project Site has been previously disturbed by the original construction of the existing buildings; and if present would have likely been detected previously. However, although unlikely, Project grading and excavation into deeper previously undisturbed subsurface areas may encounter buried human remains. If such remains were to be encountered they would be protected under applicable regulations.

California PRC Section 5097.98, as amended by Assembly Bill 2641, protects cultural resources on public lands and provides procedures in the event human remains of Native American origin are discovered during project implementation and are required to address the Project's potential impacts to human remains. PRC Section 5097.98 requires notification of the County Coroner in the event of the unanticipated discovery of human remains and a prescribed protocol for their disposition in accordance with applicable regulations, notification of the NAHC and subsequent tribal coordination if remains are determined to be of Native American descent.

Compliance with state law would ensure that potential impacts on human remains would be less than significant level.

e) Cumulative Impacts

(1) Historic Architectural Resources

A cumulative impacts analysis for historic architectural resources evaluates whether impacts of a project and related projects, when taken as a whole, would be considerable or would compound or increase environmental impacts on historical resources. As discussed above, buildings on the Project Site are not historical resources subject to direct impacts of the Project. Moreover, the six off-site buildings that are designated as historical resources within a quarter-mile radius of the Project Site lie between approximately 250 feet to 500 feet in distance from the Project Site, and they are separated from the Project Site by intervening development. Therefore, the Project would have no direct impacts on those six off-site buildings and could not contribute to direct cumulative impacts on these resources. Furthermore, there are no related projects currently proposed for the six off-site buildings and therefore, no direct impacts to these historical resources from related projects would occur.

Vulnerability of the six off-site historical resources to indirect impacts could potentially occur due to immediately adjacent development that may alter their surroundings that materially contribute to the eligibility of those historical resources. Because of the Project's distance from the historical resources and intervening development, however, the Project would not alter the immediate surroundings of those resources and as discussed above, and the Project would not have an indirect impact on historical buildings.

From most locations and lower elevations, the Project would not share a common viewshed with other historical resources or most of the related projects in the Project vicinity. However, three proposed new developments across from the Project Site would contribute with the Project to impacts on views of tall high-rise buildings, such as the AT&T Center, a 32-story tower historical resource in the Project vicinity, from more distant locations. The related projects include the 60 story DTLA South Park project - Mack Urban Site 2, caddy corner to the Project Site; the 51 story DTLA South Park project - Mack Urban Site 3, across the street from the Project Site; and the 11th and Hill, 63 story project at 11th Street and Hill Street. These projects, along with the Project would create a cluster of taller buildings in the Project vicinity that would be visible to the north of the AT&T Center that due to its height can be seen from more distant locations. However, the northerly frontage is not the primary view of the AT&T Center and main full views of the AT&T Center would remain from the west, south, and east. Therefore, this cluster of related projects would only result in one view of this scenic resource being partially obstructed, and would not adversely obstruct historically or architecturally significant primary views to and from an adjacent resource that contributes to its eligibility as a

historical resource, or be incompatible in scale, massing, materials or design with an adjacent historical resource such that its eligibility is substantially impaired.

For these reasons, the Project's contribution to cumulative impacts to historic architectural resources qualifying as historical resources under CEQA would not be cumulatively considerable, and the Project, considered together with related projects, would not result in cumulative significant impacts on historic resources or districts in the immediate vicinity.

(2) Archaeological Resources and Human Remains

Impacts related to archaeological resources qualifying as historical resources or unique archaeological resources under CEQA are in most cases site-specific because they occur on a project level as a result of a project's ground disturbance activities during construction and, as such, are assessed on a project-by-project basis. Many of the related projects within the cumulative study area would require excavation that could potentially expose or damage archaeological resources potentially qualifying as historical or archaeological resources, including portions of the Zanja. However, the related projects are also located in highly developed urban areas with sites that have been previously disturbed that are on separate sites not adjacent to the Project Site. The potential of such projects to encounter and cause, in conjunction with the Project, a significant cumulative impact on archaeological resources is limited. Further, in association with CEQA review, and depending on the depth of excavation and sensitivity of respective sites, mitigation measures including avoidance and preservation in place or other treatment would be required for related projects that have the potential to cause significant impacts to undiscovered (subsurface) archaeological resources qualifying as historical resources under CEQA. As with the Project, such measures, if implemented, would reduce project level significant impacts of the related projects to a less than significant level. The City would require that a *Zanja* System review be performed on behalf of related projects, as required under CEQA to identify historical resources, which would include specific parcel research to identify the location of the *Zanja* in relation to the related projects. If the potential for significant impacts were identified, implementation of mitigation measures would be required, including testing to determine the location if feasible, avoidance and preservation in place, or other treatment to be implemented when encountering the *Zanja* that would reduce potentially significant impacts to a less than significant level. With such mitigation implemented where and if warranted, and given the linear extent of the Zanja system, cumulative impacts from related projects are not expected to materially impair the significance of the resource and the Project would, with appropriate mitigation incorporated, not result in any incremental effects on the Zanja relative to any impacts on the *Zanja* that could be caused by one or more related projects. Similarly, the potential for related projects to cause significant impact with respect to human remains is low, but if human remains are encountered, compliance with state law and prescribed mitigation would ensure that any such impacts would be reduced to a less significant level. As a result of mitigation and state law compliance, no cumulative impacts with respect to

human remains would occur and the Project would not result in any incremental contribution to any cumulative impacts.

The Project is required to implement mitigation measures CULT-MM-1 through CULT-MM-5 for archaeological resources, and to comply with regulatory measures for the protection of human remains, thereby ensuring proper identification, treatment and preservation of any resources, and reducing Project impacts on archaeological resources and human remains to less than significant levels. **Therefore, the Project's contribution to cumulative impacts to archaeological resources and human remains would not be cumulatively considerable, and the Project, considered together with related projects, would not result in cumulative significant impacts. Cumulative impacts on archaeological resources and human remains would be less than significant.**

f) Mitigation Measures

(1) Archaeological Resources

The following mitigation measures would reduce potentially significant impacts on archaeological resources that qualify as historical resources or unique archaeological resources as defined in Section 15064.5:

CULT-MM-1: Prior to the issuance of a demolition permit, the Applicant shall retain a Qualified Archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards (Qualified Archaeologist). The Qualified Archaeologist will oversee an archaeological monitor who shall be present during construction activities on the Project Site, including demolition, clearing/grubbing, grading, trenching, or any other construction excavation activity associated with the Project. The activities to be monitored shall also include off-site improvements in the vicinity of the Project Site, such as utility, sidewalk, or road improvements. The monitor shall have the authority to direct the pace of construction equipment in areas of higher sensitivity. The frequency of monitoring shall be based on the rate of excavation and grading activities, the materials being excavated (younger sediments vs. older sediments), the depth of excavation, and, if found, the abundance and type of archaeological resources encountered. Full-time monitoring may be reduced to part-time inspections, or may be ceased entirely, if determined adequate by the Qualified Archaeologist. Prior to commencement of excavation activities, Archaeological Sensitivity Training shall be given to construction personnel at the pre-construction meeting and thereafter when new staff are added to the Project. The training session shall be carried out by the Qualified Archaeologist, will focus on how to identify archaeological resources that may be encountered during earthmoving activities, and will discuss the procedures to be followed in such an event.

CULT-MM-2: In the event that historic-period (e.g., bottles, foundations, refuse dumps/prives, railroads, etc.) or prehistoric (e.g., hearths, burials, stone tools, shell and faunal bone remains, etc.) archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the

find so that the find can be evaluated. A 50-foot buffer shall be established by the Qualified Archaeologist around the find where construction activities shall not be allowed to continue. Work may continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be evaluated by the Qualified Archaeologist. If a resource is determined by the Qualified Archaeologist to constitute a “historical resource” pursuant to CEQA Guidelines Section 15064.5(a) or a “unique archaeological resource” pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with the Applicant and the City to develop a formal treatment plan that would serve to reduce impacts to the resources. If any prehistoric archaeological sites are encountered within the project area, consultation with interested Native American parties will be conducted to apprise them of any such findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If, in coordination with the City, it is determined that preservation in place is not feasible, appropriate treatment of the resource shall be developed by the Qualified Archaeologist in coordination with the City and may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing, analysis, and reporting. Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes.

CULT-MM-3: Prior to the release of the grading bond, the Qualified Archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of archaeological monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources. The report and the Site Forms shall be submitted by the Project applicant to the City, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the development and required mitigation measures.

(2) *Zanja* Conveyance System

In addition to mitigation measures CULT-MM-1 through CULT-MM-3, the following mitigation would reduce potentially significant impacts to the *Zanja* conveyance system, if encountered:

CULT-MM-4: Although Project disturbance planned for ingress and egress to the Project Site and ancillary construction for utilities and other infrastructure related to the Project would result in mainly surficial excavation, if the *Zanja* is located

where mapped, such construction has the potential to encounter the Zanja. The following recommendations would reduce impacts to the Zanja. If Zanja-related infrastructure is unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. An appropriate exclusion area that takes into account the linear nature of the resource shall be established by the Qualified Archaeologist. Construction activities shall not be allowed to continue within the exclusion area until directed by the Qualified Archaeologist in consultation with the City, but work shall be allowed to continue outside of the exclusion area. The Qualified Archaeologist shall coordinate with the Applicant and the City's Office of Historic Resources to develop a formal treatment plan for the resource that would serve to mitigate impacts to the resource. The treatment measures listed in California Code of Regulations Section 15126.4(b) shall be considered when determining appropriate treatment for the Zanja. As noted in California Code of Regulations Section 15126.4(b)(A), preservation in place (i.e., avoidance) is the preferred manner of mitigating impacts to archaeological sites. If, in coordination with the City, it is determined that preservation in place is not feasible, other treatment measures for the resource shall be developed by the Qualified Archaeologist in coordination with the Office of Historic Resources and with final approval by the City. Treatment would be designed to address the resource's eligibility under Criterion 1 (significant events), Criterion 2 (important persons), Criterion 3 (type, period, region or method of construction), and Criterion 4 (scientific data) and may include implementation of: (1) data recovery excavations to document and remove the resource, followed by subsequent laboratory processing, analysis, and reporting; (2) a commemoration program that includes the development of an interpretive exhibit/display or plaque at the Project Site; and/or (3) other public educational and/or interpretive treatment measures determined appropriate by the Qualified Archaeologist in consultation with the City's Office of Historic Resources. Any associated artifacts collected that are not made part of the interpretive collection shall be curated at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the materials, they shall be offered for donation to a local school or historical society for educational purposes.

CULT-MM-5: The Qualified Archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms for the Zanja resource. The report shall outline the treatment measures implemented, and shall include a description of the resource and the results of any artifact processing, analysis, and research that was conducted. The report and the Site Forms shall be submitted by the Qualified Archaeologist to the City and the South Central Coastal Information Center.

g) Level of Significance After Mitigation

Project-level and cumulative level impacts to architectural historical resources and human remains would be less than significant without mitigation. No mitigation measures are required.

With implementation of mitigation measures, Project-level and cumulative impacts to historical and archaeological resources would be less than significant.

IV.D Energy

1. Introduction

This section analyzes impacts on energy resources due to construction and operation of the Project. Section 15126.2 (b) of the 2019 California Environmental Quality Act (CEQA) Guidelines states that a project's energy use shall be analyzed to determine the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy, as well as being compliant with building codes and renewable energy features. Appendix G of the 2019 State CEQA Guidelines checklist, Section VI, *Energy*, includes questions to assist lead agencies when assessing a project's potential energy impacts. In addition, Appendix G, Section XIX, *Utilities and Services*, includes a question regarding impacts associated with relocated or new construction of power and natural gas facilities. The analysis of this topic is included in this section as it is tied to the analyses that address availability and consumption of energy resources. Additionally, Appendix F provides guidance on information to use when evaluating a project's energy use.

In accordance with the applicable Appendix G sections, and utilizing guidance from Appendix F of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section includes a summary of the Project's anticipated energy needs, impacts, and conservation measures. Detailed energy calculations can be found in Appendix E of this Draft EIR. Information found herein, as well as other aspects of the Project's energy implications, are discussed in greater detail elsewhere in this Draft EIR, including in Chapter II, *Project Description*, and Sections IV.F, *Greenhouse Gas Emissions*, and IV.O.2, *Water Supply*.

2. Environmental Setting

a) Regulatory Framework

(1) Federal

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and the United States Environmental Protection Agency (USEPA) jointly administer the Corporate Average Fuel Economy standards. The U.S. Congress has specified that Corporate Average Fuel Economy standards must be set at the "maximum feasible level" with

consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.¹

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.² USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.³

(2) State

(a) *Senate Bill 1389*

Senate Bill (SB) 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state’s economy; and protect public health and safety (Public Resources Code Section 25301[a]). The 2017 Integrated Energy Policy Report provides the results of the CEC’s assessments of a variety of energy issues facing California including energy efficiency, strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan, building energy efficiency standards, the impact of drought on California’s energy system, achieving 50 percent renewables by 2030, the California Energy Demand Forecast, the Natural Gas Outlook, the Transportation Energy Demand Forecast, Alternative and Renewable Fuel and Vehicle Technology Program benefits updates, update on electricity infrastructure in Southern California, an update on trends in California’s sources of crude oil, an update on California’s nuclear plants, and other energy issues.

(b) *California’s Renewable Portfolio Standard*

First established in 2002 under SB 1078, California’s Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible

¹ National Highway Traffic Safety Administration (NHTSA), Corporate Average Fuel Economy standards, <https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy>. Accessed June 2018.

² United States Environmental Protection Agency, Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles, August 2011, <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100BOT1.PDF?Dockey=P100BOT1.PDF>. Accessed June 2018.

³ United States Environmental Protection Agency, Federal Register/Vol. 81, No. 206/Tuesday, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, October 25, 2016, <https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf>. Accessed June 2018.

renewable energy resources to 33 percent by 2020 and 50 percent by 2030.⁴ On September 10, 2018, former Governor Jerry Brown signed SB 100, which further increased California's RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and that the California Air Resources Board (CARB) should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.⁵ Refer to Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

(c) *California Building Standards Code (Title 24)*

(i) *California Building Energy Efficiency Standards (Title 24, Part 6)*

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2016 Title 24 standards, which became effective on January 1, 2017.⁶ The 2016 Title 24 standards include efficiency improvements to the residential standards for attics, walls, water heating, and lighting, and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 national standards.⁷ The 2019 Title 24 standards continue to improve upon the 2016 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 Title 24 standards go into effect on January 1, 2020.

⁴ California Public Utilities Commission, California Renewables Portfolio Standard (RPS), 2018, http://www.cpuc.ca.gov/RPS_Homepage/. Accessed June 2018.

⁵ California Public Utilities Commission, RPS Program Overview, 2018, http://www.cpuc.ca.gov/RPS_Overview/. Accessed June 2018.

⁶ California Energy Commission, 2016 Building Energy Efficiency Standards, <http://www.energy.ca.gov/title24/2016standards/>. Accessed June 2018.

⁷ California Energy Commission, 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, June 2015, <http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf>. Accessed June 2018.

(ii) *California Green Building Standards (Title 24, Part 11)*

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2017. The 2016 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.⁸ Most mandatory measure changes, when compared to the previously applicable 2013 CALGreen Code, were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicle (EV) chargers and charging and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional EV charging requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification. For nonresidential mandatory measures, the table (Table 5.106.5.3.3) identifying the number of required EV charging spaces has been revised in its entirety. The 2019 CALGreen Code improves upon the 2016 CALGreen Code by updating standards for bicycle parking, electric vehicle charging, and water efficiency and conservation. The 2019 CALGreen Code goes into effect on January 1, 2020. Refer to Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding these standards.

(d) *California Assembly Bill 1493 (AB 1493, Pavley)*

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO₂) emissions, Assembly Bill (AB) 1493 (commonly referred to as CARB's Pavley regulations), enacted on July 22, 2002, requires CARB to set greenhouse gas (GHG) emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017–2025.^{9,10} Refer to Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

(e) *Senate Bill 350*

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy efficiency

⁸ California Building Standards Commission, Guide to the 2016 California Green Building Standards Code Nonresidential, January 2017, <https://www.documents.dgs.ca.gov/bsc/CALGreen/CALGreen-Guide-2016-FINAL.pdf>. Accessed June 2018.

⁹ California Air Resources Board, Clean Car Standards—Pavley, Assembly Bill 1493, <http://www.arb.ca.gov/cc/ccms/ccms.htm>, last reviewed January 11, 2017. Accessed June 2018.

¹⁰ United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks, 2012, <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockkey=P100EZ7C.PDF>. Accessed June 2018.

savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

(f) *California Air Resources Board*

(i) *CARB's Advanced Clean Car Program*

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations.¹¹ The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the Zero-Emissions Vehicle regulations (ZEV) to require manufactures to produce an increasing number of pure ZEV's (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025. In particular, implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered.

(ii) *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

(g) *Sustainable Communities Strategy*

Adopted by the State on September 30, 2008, the Sustainable Communities and Climate Protection Act of 2008, or SB 375, establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, each region's reduction target must be incorporated within that region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities must then be consistent with the SCS. Pursuant to SB 375, On April 7, 2016, the Southern California Association of Governments (SCAG) adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040

¹¹ California Air Resources Board, Clean Car Standards – Pavley, Assembly Bill 1493, <https://www.arb.ca.gov/cc/ccms/ccms.htm>, last reviewed January 11, 2017. Accessed June 2018.

RTP/SCS), which achieves and exceeds the GHG emission-reduction targets set by CARB by demonstrating an 8 percent reduction in vehicular emissions by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 as compared to the 2005 level on a per capita basis. Compliance with and implementation of 2016-2040 RTP/SCS policies and strategies would have the co-benefits of reducing per capita vehicle miles traveled (VMT) and corresponding decreases in per capita transportation-related fuel consumption. However, it is noted that SB 375 expressly provides that the SCS does not regulate local land use decisions, and further provides that local land use plans and policies (e.g., general plan) are not required to be consistent with either the RTP or the SCS. Refer to Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding these requirements.

(3) Regional

(a) *Southern California Gas Company*

The Southern California Gas Company (SoCalGas), along with five other California utility providers released the *2016 California Gas Report*, presenting a forecast of natural gas supplies and requirements for California through the year 2035. This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. Overall, SoCalGas predicts a decrease in natural gas demand in future years due to a decrease in per capita usage, energy efficiency policies, and the State's transition to renewable energy displacing fossil fuels including natural gas.¹²

(b) *Southern California Association of Governments RTP/SCS*

The Project Site is located within the planning jurisdiction of SCAG, as is all of Los Angeles. SCAG's first-ever SCS was included in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (2012-2035 RTP/SCS), which was adopted by SCAG in April 2012. The goals and policies of that SCS that reduced per capita VMT (and resulted in corresponding decreases in per capita transportation-related fuel consumption) focused on transportation and land use planning that included building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. SCAG has since adopted the 2016-2040 RTP/SCS. The goals and policies of the 2016-2040 RTP/SCS build from the previous 2012-2035 RTP/SCS and provide strategies for reducing per capita VMT, which results in corresponding decreases in per capita transportation-related fuel consumption. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and levels of education, recreation, and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists,

¹² California Gas and Electric Utilities, 2016 California Gas Report, 2016, <https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf>. Accessed June 2018.

children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative-fueled vehicles. Refer to Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding the 2016-2040 RTP/SCS.

(4) Local

(a) *Green New Deal*

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.¹³ L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015.¹⁴ It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

Within the Green New Deal, climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 mBTU/sqft in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.

¹³ City of Los Angeles. LA's Green New Deal, 2019. http://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf, accessed September 3, 2019.

¹⁴ City of Los Angeles, Sustainable City pLAn, April 2015, <http://plan.lamayor.org/wp-content/uploads/2017/03/the-plan.pdf>. Accessed July 2018

- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) City of Los Angeles Green Building Code

On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the “Los Angeles Green Building Code,” by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filed on or after January 1, 2017, must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings. The Los Angeles Green Building Code includes some requirements that are more stringent than State requirements such as increased requirements for electric vehicle charging spaces and water efficiency, which results in potentially greater energy demand reductions from improved transportation fuel efficiency and water efficiency. Refer to Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR for additional details.

b) Existing Conditions

(1) Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, for distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid.

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh).

On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City, including the Project Site, and many areas of the Owens Valley, serving approximately 4 million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electrical service provided by LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP has a net dependable generation capacity greater than 7,531 MW.¹⁵ On August 31, 2017, LADWP's power system experienced a record instantaneous peak demand of 6,502 MW.¹⁶ Approximately 30 percent of LADWP's 2017 electricity mix was from renewable sources, which is similar to the 29 percent statewide percentage of electricity purchases from renewable sources.¹⁷ The annual electricity sale to customers for the 2016-2017 fiscal year was approximately 22,878 million kWh.¹⁸

(2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of the State's total energy requirements. Natural gas is measured in terms of cubic feet (cf).

Natural gas is provided to the Project Site by SoCalGas, which is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.6 million customers in more than 500

¹⁵ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Plan, p. 17, 2017, https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB655007&RevisionSelectionMethod=LatestReleased. Accessed June 2018.

¹⁶ Los Angeles Department of Water and Power, Facts & Figures, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=xk0dbq6vu_4&_afLoop=865109299538310. Accessed June 2018.

¹⁷ California Energy Commission, Utility Annual Power Content Labels for 2017, Los Angeles Department of Water and Power, https://www.energy.ca.gov/pcl/labels/2017_labels/LADWP_2017_PCL.pdf. Accessed June 2019.

¹⁸ Los Angeles Department of Water and Power, 2017 Retail Electric Sales and Demand Forecast, p. 14, 2017, http://ezweb.ladwp.com/Admin/Uploads/Load%20Forecast/2017/10/2017%20Retails%20Sales%20Forecast_Final.pdf. Accessed June 2018.

communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the U.S./Mexican border.¹⁹

SoCalGas receives gas supplies from several sedimentary basins in the western United States and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies.²⁰ The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.²¹ Gas supply available to SoCalGas from California sources averaged 122 million cf per day in 2015 (the most recent year for which data are available).²² The annual natural gas sale to customers in 2016 was approximately 304,290 million kilo British thermal units (kBtu).²³

(3) Transportation Energy

According to the CEC, transportation accounted for 38.5 percent of California's total energy consumption in 2015.²⁴ In 2016, California consumed 15.5 billion gallons of gasoline and 3.7 billion gallons of diesel fuel.²⁵ Petroleum-based gasoline and diesel fuels account for more than 90 percent of California's transportation fuel use, with alternative fuels such as biofuels, natural gas, hydrogen, and electricity accounting for the remaining balance.²⁶ However, the state is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California 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. Accordingly, total gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline through 2030, and there will

¹⁹ Southern California Gas, Company Profile, <http://www.socalgas.com/about-us/company-info.shtml>. Accessed June 2018.

²⁰ California Gas and Electric Utilities, 2016 California Gas Report, p. 79, <https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf>. Accessed June 2018.

²¹ California Gas and Electric Utilities, 2016 California Gas Report, p. 79, 2016.

²² California Gas and Electric Utilities, 2016 California Gas Report, p. 79, 2016.

²³ Sempra Energy, 2016 Annual Report, 2017, http://www.annualreports.com/HostedData/AnnualReports/PDF/NYSE_SRE_2016.pdf. Accessed June 2018. Converted from 294 billion cubic feet and a conversion factor of 1,035 Btu per cubic foot based on United States Energy Information Administration data (see: United States Energy Information Administration, Natural Gas, Heat Content of Natural Gas Consumed, March 30, 2018, https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed June 2018).

²⁴ California Energy Commission, Final 2017 Integrated Energy Policy Report Update, docketed April, 16, 2018, p. 3, https://www.energy.ca.gov/2017_energy/policy/. Accessed June 2019. Based on the transportation sector accounting for 38.5 percent of the state's GHG emissions in 2015.

²⁵ California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016, http://www.energy.ca.gov/almanac/transportation_data/gasoline/2016_A15_Results.xlsx. Accessed: June 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

²⁶ California Energy Commission, 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, May 2016, <http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf>. Accessed June 2018.

be an increase in the use of alternative fuels.²⁷ According to fuel sales data from the CEC, fuel consumption in Los Angeles County was approximately 3.58 billion gallons of gasoline and 0.58 billion gallons of diesel fuel in 2016.²⁸

(4) Project Site

The Project Site is 41,603 square feet in size which includes five existing commercial buildings (containing 35,651 square feet of area) and an approximately 5,952 square-foot paved parking and hardscape area, which is served by LADWP. All of the existing features are to be demolished to allow for the development of the Project. Energy demand from the existing uses is incorporated into this analysis to determine the Project's net (Project minus existing) energy consumption. The Project Site's current annual electricity demand is approximately 155,000 kWh, its natural gas demand is approximately 25,000 kBtu, and its demand for diesel fuel is approximately 2,793 and gasoline is approximately 32,604 gallons. The California Emissions Estimator Model (CalEEMod) was used to provides estimates of annual electricity, natural gas, and water use while the CARB on-road vehicle emissions model (EMFAC2017) was used to estimate transportation fuel demand.

The Project Site is bounded by Olive Street on the east, 11th Street on the south, Grand Avenue on the west and Olympic Boulevard on the north.²⁹ The Project Site is served by a network of regional transportation facilities that provide access to the greater metropolitan area. It is located approximately 1,500 feet from the entrance to the Pico Boulevard Station that provides rail service to the Los Angeles County Metropolitan Transportation Authority (Metro) Blue and Expo Lines; and approximately 2,700 feet from the 7th Street/Metro Center Station that provides rail service to the Blue, Expo, Red and Purple Lines. It also lies adjacent to multiple bus and shuttle lines in the immediate vicinity, approximately 0.6 miles north of the Santa Monica Freeway (I-10) and 0.6 miles east of the Harbor Freeway (I-110). The existing uses (manufacturing and retail) generate approximately 126 daily vehicle trips,³⁰ resulting in approximately 760,945 annual VMT based on the assessment conducted using data from the Project's Environmental Leadership Development Project (ELDP) analysis pursuant to AB 900, which was based on CalEEMod VMT factors. Therefore, the existing VMT associated with the Project Site are considered as part of the baseline conditions in this analysis.

Section IV.M, *Transportation and Traffic*, of this Draft EIR, also includes a VMT analysis based upon the City's recently adopted VMT Calculator that has been developed to

²⁷ California Energy Commission, Final 2017 Integrated Energy Policy Report Update, docketed April, 16, 2018, p. 212.

²⁸ California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

²⁹ Streets in the Downtown area do not align along a true north-south axis. However, the streets are extensions of streets that lie long north-south and east-west axes within the greater City area. Unless otherwise dictated by contexts, the generally understood references of east, west, north and south will be used here.

³⁰ Refer to the 1045 Olive Project Transportation Study, May 2018, prepared by The Mobility Group and included in Appendix N of this Draft EIR.

measure VMT in a manner that is consistent with State CEQA Guidelines Section 15064.3. This analysis differs from the Project's ELDP analysis pursuant to AB 900. The VMT analysis using the recently adopted City methodology, which is included in Section IV.M, *Transportation and Traffic*, and Appendix N-4, *VMT Analysis, 2019*, of this Draft EIR, results in lower VMT than the VMT values in the ELDP analysis. As a conservative approach, the VMT values from the ELDP analysis, which are greater in amount, are used in this Draft EIR for evaluating operational mobile source air quality, greenhouse gas, and energy impacts.

3. Project Impacts

a) Thresholds of Significance

(1) State CEQA Guidelines

Appendix G of the State CEQA Guidelines provides checklist items for the evaluation of impacts related to energy resources. In addition, Appendix F of the State CEQA Guidelines was prepared in response to the requirement in Public Resources Code Section 21100(b)(3) that an EIR shall include “[m]itigation measures proposed to minimize the significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.”

In analyzing potential impacts regarding energy the City has determined to use the Appendix G questions as the thresholds of significance for the Project. The factors below from the L.A. CEQA Thresholds Guide will be used to assist in analyzing the Appendix G questions.

Accordingly, the Project would have a significant impact on energy resources if it would:

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

In accordance with Appendix F and Appendix G of the State CEQA Guidelines, the following factors identified in the L.A. CEQA Thresholds Guide are considered, as appropriate, and addressed individually below, in determining whether this threshold of significance is met:

- The Project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the Project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
- The effects of the Project on local and regional energy supplies and on requirements for additional capacity;
- The effects of the Project on peak and base period demands for electricity and other forms of energy;

- The effects of the Project on energy resources;
- The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

In addition, the Project would have a significant impact if it would:

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

In accordance with Appendix F and Appendix G of the State CEQA Guidelines, the following factors identified in the L.A. CEQA Threshold Guide are considered, as appropriate, and addressed individually below, in determining whether this threshold of significance is met:

- The degree to which the Project complies with existing energy standards;
- The degree to which the Project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.
- Whether the Project conflicts with adopted energy conservation plans.

Section XIX, Utilities and Service Systems, of Appendix G of the State CEQA Guidelines, addresses impacts on energy infrastructure. In accordance with this, the Project would have a significant impact related to energy infrastructure if it would:

a) Require or result in the relocation or construction of new or expanded electric power or natural gas, the construction or relocation of which would cause significant environmental effects.

With regard to potential impacts to energy facilities, the L.A. CEQA Thresholds Guide further states that a determination of significance shall be made on a case-by-case basis, considering the following factors identified in the Thresholds Guide, as appropriate, which are also addressed under this threshold:

- The extent to which the Project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity-enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; and
- The degree to which the Project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.

b) Methodology

This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. Specific analysis methodologies are discussed below. Calculations are provided in Appendix E of this Draft EIR, and are based on the same assumptions as are used in Section IV.B, *Air Quality*, and Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR.

(1) Construction

Construction electricity was estimated for a temporary construction office, for construction equipment that would use electricity as an alternative to diesel fuel, and for water usage from dust control. The construction office was assumed to be a 1,000 square foot trailer and was modelled using CalEEMod,³¹ which is a state-approved emissions model used for the Project's air quality and GHG emissions assessment. In addition to outputting emissions, CalEEMod provides for estimation of annual electricity, natural gas, and water use. Electricity demand by construction equipment was estimated using default horsepower and load factors from CalEEMod and hours of operation per day provided by the Applicant. The total horsepower-hours were then converted to kWh using a standard conversion factor. The electricity demand of the Project Site's existing uses was then subtracted from the construction electricity use to determine the net electricity use during Project construction. In terms of natural gas, construction activities typically do not involve the consumption of natural gas. Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix C of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour from CARB's off-road vehicle (OFFROAD) model. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC2017 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. The Applicant provided more conservative estimates of trip lengths for haul trips during the site preparation, grading, concrete pour, and excavation phases, compared to the CalEEMod assumed haul trip lengths (i.e., longer trips lengths). CalEEMod assumed trip lengths were used for worker commutes and vendor trips. Consistent with CalEEMod, construction worker trips were assumed to include a mix of light duty gasoline automobiles and light duty gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. The fuel consumption of the Project Site's existing uses was then subtracted from the construction fuel consumption to determine the net fuel consumption during Project construction. Refer to Appendix E of this Draft EIR for detailed energy calculations.

The energy usage required for Project construction has been estimated based on the number and type of construction equipment that would be used during Project construction by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). Energy for construction worker commuting trips has been estimated based on the predicted number of workers for the various phases of construction and the estimated VMT based on the conservative values in the CalEEMod modeling and the haul truck trip lengths provided by the Applicant, which are greater than the CalEEMod trip length assumptions. The assessment also includes a discussion of the

³¹ California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017, <http://caleemod.com/>. Accessed June 2018.

Project's compliance with relevant energy-related regulatory requirements that would minimize the amount of energy usage during construction.

The construction equipment and haul trucks would likely be diesel-fueled, while the construction worker commute vehicles would primarily be gasoline-fueled. For the purposes of this assessment, it is conservatively assumed that all heavy-duty construction equipment and haul trucks would be diesel-fueled. This represents a worst-case scenario intended to represent the maximum potential energy use during construction. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB OFFROAD emissions model, which is a state-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB EMFAC emissions model, which is a state-approved model for estimating emissions on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into CalEEMod, which is a state-approved emissions model used for the Project's air quality and GHG emissions assessment.

(2) Operation

Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas from Project operation was calculated using demand factors provided in CalEEMod, which are based on the 2016 Title 24 standards and went into effect on January 1, 2017. Energy usage from water demand (e.g., electricity used to supply, convey, treat, and distribute) was estimated based on new buildings and facilities compared to the existing uses and includes incorporation of WS-PDF-1 (also discussed in Section IV.O.2, *Water Supply*, of this Draft EIR). The CEC estimated that the 2016 Title 24 standards are 28 percent more efficient than the 2013 Title 24 standards for residential construction and five percent more efficient for non-residential construction.³²

Energy impacts associated with transportation during operation were also assessed. Energy demand due to the transportation of residents, employees and visitors to and from the Project Site was estimated based on the predicted number of trips to and from the Project Site and the estimated VMT obtained from the Transportation Study included in Appendix N-2 of this Draft EIR.³³ The assessment also includes a discussion of the Project's compliance with relevant energy-related regulations, its incorporation of AQ-PDF-1 and WS-PDF-1, and its land use transportation characteristics that would require the Project to incorporate energy and water efficiency designs that achieve the equivalent of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification level for new buildings and would

³² California Energy Commission, 2016 Building Energy Efficiency Standards Adoption Hearing presentation, June 10, 2015, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf. Accessed June 2018.

³³ The Mobility Group, 1045 Olive Project Transportation Study, May 2018. Included in Appendix N of this Draft EIR.

minimize the amount of transportation energy usage during operations. These features and characteristics are also discussed in Chapter II, *Project Description*, Section IV.B, *Air Quality*, Section IV.F, *Greenhouse Gas Emissions*, and Section IV.O.2, *Water Supply*, of this Draft EIR.

Based on the Project's annual operational VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon in EMFAC2017. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for the Project Site area in the South Coast Air Basin, which includes Los Angeles County. Supporting calculations are provided in Appendix E of this Draft EIR.

The energy impacts associated with the Project's on-site emergency generator capacity, estimated at approximately 708 kilowatts (950 horsepower) were also estimated in this analysis. The emergency generator would result in energy consumption during maintenance and testing operations. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470. Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies in 2022 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's energy demands.

Operational energy impacts were assessed based on the increase in energy demand compared to existing conditions. Under CEQA, the existing environmental setting for an EIR is generally established at or around the time that the Notice of Preparation (NOP) for the EIR is published. As discussed previously, the Project Site is developed with five commercial buildings totaling 35,651 square feet and an approximately 5,952 square-foot paved parking and hardscape area, for a total of 41,603 square feet. Within the CalEEMod software, building electricity and natural gas usage rates were adjusted to account for prior Title 24 Building Energy Efficiency Standards.³⁴ As stated above, the net change in operational energy demand is based on the difference between the existing Project Site energy demand and the energy demand of the Project at full buildout.

c) Project Design Features and Project Characteristics

(1) Project Design Features

The following Project Design Features are incorporated into the Project:

³⁴ California Air Resources Board, CalEEMod User's Guide, Appendix E, Section 5, September 2016, http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/06_appendix-e2016-3-1.pdf?sfvrsn=2. Accessed October 2017. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

AQ-PDF-1: Green Building Features (refer to Section IV.B, *Air Quality*, of this Draft EIR for additional details). This Project Design Feature requires the Project to incorporate energy and water efficiency designs that achieve the equivalent of the USGBC LEED Gold Certification level for new buildings, which would minimize building energy demand.

WS-PDF-1: Water Conservation Features (refer to Section IV.O.2, *Water Supply*, of this Draft EIR for additional details). This Project Design Feature requires the Project implement water conservation features that are in addition to those required by codes and ordinances, which would minimize building water demand and associated energy demand for water supply, conveyance, and treatment.³⁵

(2) Land Use Characteristics

As discussed in Section IV.B, *Air Quality*, and Section IV.F, *Greenhouse Gas Emissions*, the Project would represent an urban infill development, since it would be developed on a currently developed site in an urban area. In addition, it would provide a mixed-use development with increased density at a Project Site identified by the City as being within a Transit Priority Area (TPA) that is located near existing off-site commercial and retail destinations and in proximity to existing public transit stops.

The Project would result in increased density on the Project Site. The Project would result in increased land use diversity and mixed-uses on the Project Site by including different types of land uses near one another, and would be located in an area that offers access to multiple other nearby destinations including restaurant, bar, studio/production, office, entertainment, movie theater, and residential uses. The Project would be located in a transportation-efficient area including high quality public transit stations and stops, and would provide pedestrian access connectivity within the Project and to/from off-site destinations. These land use characteristics have been shown to minimize VMT and are included in the transportation fuel demand for the Project's mobile sources. Additional detailed information regarding these land use characteristics are provided in Sections IV.B, *Air Quality* and IV.F, *Greenhouse Gas Emissions* of this Draft EIR. Analysis of Project Impacts

³⁵ California Air Resources Board, California's 2017 Climate Change Scoping Plan, pp. 92-93, 2017, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed June 2019. As discussed therein, "the greatest energy consumption related to water is from delivery to end uses." Therefore, "the potential for energy savings also resides with water end users, where water conservation and efficiency play an important role."

d) Analysis of Project Impacts

Threshold a) *Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? Less than Significant Impact.*

The following analysis considers the topics identified above under both Appendix F and Appendix G of the State CEQA Guidelines and the City's CEQA Thresholds Guide to determine whether this significance threshold would be exceeded.

- **The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.**

As discussed above, the Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption, and transportation fuels such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (construction and operations). For purposes of this analysis, Project maintenance would include activities such as repair of structures, landscaping and architectural coatings, which are included as part of Project operations.

(1) Construction

During Project construction, energy would be consumed in the form of electricity on a limited basis for powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities typically do not involve the consumption of natural gas. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

As shown in **Table IV.D-1, *Summary of Net Energy Use During Project Construction***, an annual average total of approximately 440,567 kWh of electricity, 148,050 gallons of gasoline, and 99,521 gallons of diesel fuel is estimated to be consumed during Project construction. Project construction is expected to be completed by 2022.

TABLE IV.D-1
SUMMARY OF NET ENERGY USE DURING PROJECT CONSTRUCTION ^{a,c}

Energy Type	Total Quantity ^b	Annual Average Quantity During Construction ^b
Electricity		
Construction Office	42,218 kWh	12,990 kWh
Electric Construction Equipment	1,351,477 kWh	415,839 kWh
Electricity from Water (Dust Control)	38,147 kWh	11,738 kWh
Total Annual Average Electricity	N/A	440,567 kWh
Gasoline		
On-Road Construction Equipment	481,164 gallons	148,050 gallons
Off-Road Construction Equipment	0 gallons	0 gallons
Total Annual Average Gasoline	N/A	148,050 gallons
Diesel		
On-Road Construction Equipment	183,332 gallons	56,410 gallons
Off-Road Construction Equipment	140,111 gallons	43,111 gallons
Total Annual Average Diesel	N/A	99,521 gallons

kWh = kilowatt-hours; N/A = not applicable

^a Detailed calculations are provided in Appendix E of this Draft EIR.

^b Totals may not add up due to rounding of decimals.

^c Negative values are denoted using parentheses.

SOURCE: ESA, 2019; CalEEMod, 2018.

(a) Electricity

During construction of the Project, electricity would be consumed, on a limited basis, to power lighting, electric equipment, and supply and convey water for dust control. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site.

As shown in Table IV.D-1, annual construction electricity usage would be approximately 440,567 kWh. This represents approximately 6.4 percent of the Project's net annual electricity consumption which, as discussed below, would be within the supply and infrastructure capabilities of LADWP (forecasted to be 25,919 GWh in total energy sales in the 2022-2023 fiscal year).^{36,37} The electricity demand at any given time would vary

³⁶ Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

³⁷ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, Appendix A, Table A-1, 2017.

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. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represent a small fraction of the Project's net annual operational electricity. Furthermore, the electricity used for off-road light construction equipment would have the co-benefit of reducing construction-related air pollutant and GHG emissions from more traditional construction-related energy in the form of diesel fuel. For example, replacing diesel-fueled construction equipment with electric-powered equipment would reduce diesel fuel combustion on the Project Site. Therefore, impacts from construction electrical demand would be less than significant and would not result in the wasteful, inefficient, and unnecessary consumption of energy.

(b) *Natural Gas*

As stated above, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no expected demand generated by construction of the Project. Therefore, project construction would not result in the wasteful, inefficient, and unnecessary consumption of energy.

(c) *Transportation Energy*

Table IV.D-1 reports the amount of petroleum-based transportation energy that could potentially be consumed during Project construction based on the conservative set of assumptions provided in Appendix E of this Draft EIR. During Project construction, on- and off-road vehicles would consume an estimated annual average of approximately 99,521 gallons of diesel and approximately 148,050 gallons of gasoline per year of construction, which would last for up to approximately 3.25 years. For comparison purposes only, and not for the purpose of determining significance, the fuel usage during Project construction would represent approximately 0.004 percent of the 2016 annual on-road gasoline-related energy consumption and 0.017 percent of the 2016 annual diesel fuel-related energy consumption in Los Angeles County,³⁸ as shown in Appendix E of this Draft EIR.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.³⁹ Project-related vehicle trips would also benefit from Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions, but would

³⁸ California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016, http://www.energy.ca.gov/almanac/transportation_data/gasoline/2016_A15_Results.xlsx. Accessed August 2018.

³⁹ BP Global, Oil reserves, 2018, <http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html>. Accessed June 2018

also result in fuel savings in addition to compliance with Corporate Average Fuel Economy standards.

Construction of the Project would comply with State and federal regulations, such as the anti-idling regulation in accordance with Section 2485 in Title 13 of the California Code of Regulations, and fuel requirements in accordance with Section 93115 in Title 17 of the California Code of Regulations, which would reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels, from unnecessary idling fuel combustion. While these required regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings. Compliance with required regulations will be enforced by construction contractors. Furthermore, per NOISE-PDF-2, signs will be posted at Project truck loading areas prohibiting idling for more than 5 consecutive minutes (see Section IV.J, *Noise*, of this Draft EIR).

In addition, the Project would divert mixed construction and demolition debris to City-certified construction and demolition waste processors using City-certified waste haulers, consistent with the Los Angeles City Council approved Ordinance No. 181519 (LAMC Chapter VI, Article 6, Section 66.32-66.32.5 (Purpose; Solid Waste Hauler Permit Requirements; AB 939 Compliance Fees; Violations, Penalties, and Permit Suspension and Revocation; Compliance Permit Terms and Conditions; Indemnifications, respectively) and consistent with achieving the USGBC LEED Gold Certification level or its equivalent as discussed in AQ-PDF-1 (Green Building Features). Diversion of mixed construction and demolition debris would reduce truck trips to landfills, which are typically located some distance away from City centers, and increase the amount of waste recovered (e.g., recycled, reused, etc.) at material recovery facilities, thereby further reducing transportation fuel consumption.

Based on the analysis above, construction would utilize energy only for necessary on-site activities and to transport construction materials and demolition debris to and from the Project Site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and thus minimize the Project's construction-related energy use. Therefore, construction of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy.

(2) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, space heating/ventilating/air conditioning (HVAC); refrigeration; water heating, lighting; and the use of electronics, equipment, and appliances. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in **Table IV.D-2, *Summary of Annual Net New Energy Use During Project Operation***, the Project's net new energy demand would be approximately 6,847,000 kWh of electricity per year, 10,813,000 kBtu

of natural gas per year, 536,390 gallons of gasoline per year, and 57,601 gallons of diesel fuel per year.

TABLE IV.D-2
SUMMARY OF ANNUAL NET NEW ENERGY USE DURING PROJECT OPERATION ^{a,c}

Energy Type	Annual Quantity ^b
Electricity	
Existing Site	(155,000 kWh)
Proposed Project	7,002,000 kWh
Total Net Electricity	6,847,000 kWh
Natural Gas	
Existing Site	(25,000 kBtu)
Proposed Project	10,838,000 kBtu
Total Net Natural Gas	10,813,000 kBtu
Transportation	
Existing Site	
Gasoline	(32,604 gallons)
Diesel	(2,793 gallons)
Proposed Project	
Gasoline	568,994 gallons
Diesel - Transportation	58,555 gallons
Diesel - Emergency Generator	1,838 gallons
Total Net Transportation – Gasoline	536,390 gallons
Total Net Transportation – Diesel	57,601 gallons

kWh = kilowatt-hours

kBtu = thousand British thermal unit

^a Detailed calculations are provided in Appendix E of this Draft EIR.

^b Totals may not add up due to rounding of decimals.

^c Negative values are denoted using parentheses.

^b Project electricity and natural gas estimates assume compliance with applicable Title 24 and CALGreen requirements and implementation of AQ-PDF-1 in Section IV.B, *Air Quality*, and WS-PDF-1 in Section IV.O.2, *Water Supply*, of this Draft EIR.

SOURCE: ESA, 2019.

(a) *Electricity*

As shown in Table IV.D-2, with compliance with the Title 24 standards and CALGreen requirements, at buildout, the Project would result in a projected net increase in the on-site demand for electricity totaling approximately 6,847,000 kWh per year. In addition to compliance with CALGreen, the Project also incorporates AQ-PDF-1 (Green Building

Features) as described in Section IV.B, *Air Quality*, of this Draft EIR, which includes building features to achieve the USGBC LEED Gold Certification level or its equivalent. Key Project Design Features that would contribute to electricity efficiencies include incorporating heat island reduction strategies including but not limited to high-reflectance and vegetated roofs for the Project roof areas, and providing water efficient fixtures and landscaping to reduce indoor water use by 40 percent and outdoor water use by 50 percent from the LEED usage baseline. The HVAC system would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain. In addition, the Project incorporates WS-PDF-1 (Water Conservation Features) as provided in Section IV.O.2, *Water Supply*, of this Draft EIR, to minimize water demand and associated energy needed for water conveyance. As shown therein, WS-PDF-1 includes the installation of low-flow and high efficiency showerheads, toilets, and urinals; landscaping consisting of native and drought-tolerant plants; and water efficient drip/subsurface irrigation and micro-spray.

LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. LADWP's current sources include wind, solar, and geothermal sources. These sources accounted for 30 percent of LADWP's overall energy mix in 2017, the most recent year for which data are available, and represent the available off-site renewable sources of energy that would meet the Project's energy demand.⁴⁰ LADWP generates its load forecast based on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, plug-in electric vehicle (PEV) projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.⁴¹ In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would therefore account for the Project's electricity demand.⁴² Based on LADWP's collected data in its 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its total energy sales in the 2022-2023 fiscal year (the Project's buildout year) will be 25,919 GWh of electricity.^{43,44} As such, the Project-related net increase in annual electricity consumption of 6,847,000 kWh per year would represent approximately 0.026 percent of LADWP's projected sales in 2022 and therefore would be within LADWP's projected electricity supplies. As previously described, the Project incorporates

⁴⁰ California Energy Commission, Utility Annual Power Content Labels for 2017, Los Angeles Department of Water and Power.

⁴¹ Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resource Plan, p. 70, 2017.

⁴² Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resource Plan, p. 67, 2017.

⁴³ Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

⁴⁴ Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resource Plan, p. 14, 2017.

a variety of energy and water conservation measures and features to reduce energy usage and minimize energy demand. Therefore, with the incorporation of these measures and features, operation of the Project would not result in the wasteful, inefficient, or unnecessary consumption of electricity.

(b) *Natural Gas*

As reported in Table IV.D-2, with compliance with Title 24 standards and CALGreen requirements, at buildout, the Project is projected to generate a net increase in the on-site demand for natural gas totaling approximately 10,813,000 kBtu per year. Building natural gas demand is associated with space heating, hot water, and cooking. 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 incorporates Project Design Features to further reduce energy use. The Project incorporates AQ-PDF-1 (Green Building Features) as described in Section IV.B, *Air Quality*, of this Draft EIR, which includes building features to achieve the USGBC LEED Gold Certification level or its equivalent. Key Project Design Features that would contribute to natural gas efficiencies include providing water efficient fixtures. The HVAC system would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain. The Project would also eliminate natural gas that would otherwise be used by natural gas fireplaces in the residential units by not including the use of residential natural gas fireplaces as per AQ-PDF-1.

As stated above, the Project's net increase in demand for natural gas is estimated to be 10.8 million kBtu per year, or approximately 0.03 million kBtu per day. Based on the 2016 California Gas Report, the California Energy and Electric Utilities, a collective of California utility companies, estimates natural gas consumption within SoCalGas's planning area will be approximately 2,592 million kBtu per day in 2022 (the Project's buildout year) and supplies in 2022 are projected to be 4,011 million kBtu per day.⁴⁵ The Project would account for approximately 0.001 percent of the 2022 forecasted annual consumption in SoCalGas's planning area and therefore would fall within SoCalGas' projected consumption for the area.⁴⁶ Furthermore, SoCalGas has stated that it has "facilities in the area" of the Project and that "gas service will be provided in accordance with the rules and regulations in effect at the time service is provided."⁴⁷ As previously described, the Project incorporates a variety of energy conservation measures and features to reduce energy usage and minimize energy demand. Therefore, with the incorporation of these measures and features, operation of the Project would not result in the wasteful, inefficient, or unnecessary consumption of natural gas.

⁴⁵ California Gas and Electric Utilities, 2016 California Gas Report, p. 97, 2016.

⁴⁶ California Gas and Electric Utilities, 2016 California Gas Report, p. 97, 2016.

⁴⁷ Southern California Gas Company, Will Service Letter Request for – 1045 S. Olive St., Los Angeles, CA 90015, Letter from Vazquez, Gamaliel, to David Evans and Associates, Inc., dated November 16, 2017. Included in Appendix E of this Draft EIR.

(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. The Project Site's residential uses would be conveniently located to nearby shopping areas with grocery stores, restaurants, and retail/commercial land uses, and the Project Site itself is located close to multiple transit options, affording all of the Project's uses broad mobility without the need to use passenger vehicles. A majority of the vehicle fleet that would be used by Project occupants and residents would consist of light-duty automobiles and light-duty trucks, which are subject to different fuel efficiency standards, depending on the make and model year of the vehicles involved. Generally, these standards apply only to more recently manufactured automobiles. Annual trips for the Project were estimated using trip rates provided in the Transportation Study included in Appendix N-2 of this Draft EIR.⁴⁸

As reported in Table IV.D-2, the Project's estimated net increase in petroleum-based fuel usage would be approximately 536,390 gallons of gasoline and 57,601 gallons of diesel per year, or a total of 593,991 gallons of petroleum-based fuels annually. Based on the California Energy Commission's *California Annual Retail Fuel Outlet Report*, Los Angeles County consumed 3,577,000,000 gallons of gasoline and 581,000,000 gallons of diesel fuel in 2016.⁴⁹ The Project would account for 0.015 percent of County gasoline consumption and 0.010 percent of County diesel consumption for the year 2016.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.⁵⁰ Some percentage of automobiles and trucks driven by project residents, visitors and employees would benefit from Corporate Average Fuel Economy fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicles would also benefit from auto manufacturers' compliance with Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with Corporate Average Fuel Economy standards. Transportation fuel efficiency would improve as future Project residents, visitors, and employees replace their privately owned or leased older vehicle models with newer vehicle models that achieve greater fuel efficiency.

The Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles for the reasons provided below. As discussed in detail in Section IV.F, *Greenhouse Gas Emissions*, the Project's design and its characteristics would be consistent with and would

⁴⁸ The Mobility Group, 1045 Olive Project Transportation Study, May 2018. Included in Appendix N of this Draft EIR.

⁴⁹ California Energy Commission (CEC), California Annual Retail Fuel Outlet Report, 2016, http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html.

⁵⁰ BP Global, Oil reserves, 2018, <http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html>. Accessed June 2018.

not conflict with the goals of the SCAG 2016-2040 RTP/SCS. The Project's mixed use design and its increase in density located on an infill site within a TPA and High Quality Transit Area (HQTa) and in close proximity to existing high-quality transit, including the Metro Blue/Expo Line and multiple bus routes, its close proximity to other retail, restaurant, entertainment, commercial, and job destinations, and its highly walkable environment support the conclusion that the Project has been properly designed and located so that its development would achieve a reduction in VMT of approximately 35 percent relative to a comparable project that has the same land uses and quantities as the Project, but does not have the location-specific nor the Project design-specific benefits nor the infill nature of the Project that would lead to VMT and trip reductions (refer to the detailed VMT analysis provided in Section IV.F, *Greenhouse Gas Emissions*, and the Project Transportation Study included in Appendix N-2 of this Draft EIR). Additionally, the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 5 percent of the parking spaces pursuant to the CALGreen Code and LAMC.

Given this evidence, the Project would minimize operational transportation fuel demand consistent with and not in conflict with State, regional, and City goals. Therefore, operation of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy in the form of transportation fuels.

- **The effects of the project on local and regional energy supplies and on requirements for additional capacity.**

(1) Construction

As discussed above, electricity would be consumed during Project construction activities. 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. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no demand generated by construction. As stated above, transportation fuel usage during Project construction activities would represent approximately 0.003 percent of gasoline usage and 0.018 percent of diesel usage within Los Angeles County, respectively. Construction transportation energy would be provided by existing retail service stations and from existing mobile fuel services that are typically needed to deliver fuel to a construction site to refuel the off-road construction equipment at the Project Site and no new facilities would be expected to be required. As energy consumption during construction would not be substantial, the Project would not materially affect the local and/or regional energy supplies and would not require additional capacity.

(2) Operation

As stated above, based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its total energy sales in the 2022–2023 fiscal year (the Project's buildout year) will be 25,919 GWh of electricity.^{51,52} The Project-related net increase in annual electricity consumption of 6,847,000 kWh/year would represent approximately 0.026 percent of LADWP's projected sales for the 2022-2023 fiscal year. Furthermore, LADWP has stated that it has sufficient electricity supplies for the Project as indicated in its Will Serve letter for the Project, which states that, "The estimated power requirement for this proposed Project is part of the total load growth forecast for the City and has been taken into account in the planned growth of the power system."⁵³ Based on these factors, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to serve the Project's electricity demand.

As stated above, the Project's estimated net increase in demand for natural gas is 10,813,000 kBtu per year, or approximately 29,625 kBtu per day. Based on the 2016 California Gas Report, the California Energy and Electric Utilities estimates that natural gas consumption within SoCalGas' planning area will be approximately 2,592 million kBtu per day in 2022 (the Project's buildout year) and supplies in 2022 are projected to be 4,011 million kBtu per day.⁵⁴ This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. The Project would account for approximately 0.004 percent of the 2022 forecasted consumption in SoCalGas' planning area and therefore would fall within SoCalGas' projected consumption and supplies for the area. As such, it is expected that SoCalGas' existing and planned natural gas capacity and supplies will be sufficient to serve the Project's demand.

As stated above, at buildout, the Project would consume a net increase of 536,390 gallons of gasoline and 57,601 gallons of diesel per year, or a total of 593,991 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.015 percent of the 2016 annual on-road gasoline- and 0.010 percent of the 2016 annual on-road diesel-related energy consumption in Los Angeles County. Detailed energy calculations are shown in in Appendix E of this Draft EIR. Operational transportation energy would be provided by existing retail service stations and no new retail service stations would be expected to be required. Transportation fuels (gasoline and diesel) are produced from crude oil, which can be produced from domestic supplies or imported from various regions around the world and, based on current proven reserves, crude oil production would be sufficient to

⁵¹ Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

⁵² Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, Appendix A, Table A-1, 2017.

⁵³ Los Angeles Department of Water and Power, Metropolitan Service Planning, Will Serve Letter from Bergman, Jeffrey T. to Miller, Taylor, dated October 31, 2017. Included in Appendix E of this Draft EIR.

⁵⁴ California Gas and Electric Utilities, 2016 California Gas Report, p. 97, 2016.

meet over 50 years of consumption.⁵⁵ As such, it is expected that existing and planned transportation fuel supplies will be sufficient to serve the Project's demand. As energy consumption during operation would be relatively negligible, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.

- **The effects of the project on peak and base period demands for electricity and other forms of energy.**

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of the LADWP's power grid and base load conditions. With regard to peak load conditions, the LADWP power system experienced an all-time high peak of 6,502 MW on August 31, 2017.⁵⁶ LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2022-2023 (closest forecasted year to first project operational year), the base case peak demand for the power grid is 5,933 MW.⁵⁷ Under peak conditions, the Project would consume a net increase of 6,847,000 kWh on an annual basis which, assuming 12 hours of active electricity demand per day, would be equivalent to approximately 1,563 kW (peak demand assuming 4,380 hours per year of active electricity demand).⁵⁸ In comparison to the LADWP power grid base peak load of 5,933 MW for 2022-2023, based on the assumption above, the Project would represent approximately 0.026 percent of the LADWP base peak load conditions.⁵⁹ Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid. Therefore, the Project's electrical consumption during operational activities would have a negligible effect on peak load conditions of the power grid.

- **Effects of the project on energy resources.**

As discussed above, LADWP's electricity generation is derived from a mix of non-renewable and renewable sources, such as coal, natural gas, solar, geothermal wind and hydropower. The LADWP 2017 Power Strategic Long-Term Resource Plan identifies adequate resources (natural gas, coal) to support future generation capacity, and, as discussed above, LADWP's existing and planned electricity capacity and supplies would be sufficient to serve the Project's electricity demand.⁶⁰ As discussed above in the

⁵⁵ BP Global, Oil reserves, 2018, <http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html>. Accessed March 2018.

⁵⁶ Los Angeles Department of Water and Power, 2017 Retail Electric Sales and Demand Forecast, p. 6, 2017.

⁵⁷ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, Appendix A, Table A-1, 2017.

⁵⁸ Calculated as follows: 6,847,000 kWh / 4,380 hours = 1,563 kW.

⁵⁹ Calculated as follows: 1,563 kW / 5,933,000 kW = 0.026%.

⁶⁰ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. ES-25, 2017. "the 2017 SLTRP outlines an aggressive strategy for LADWP accomplish its goals, comply with regulatory mandates, and provide sufficient resources over the next 20 years given the information presently available"

Regulatory Framework, one of the objectives of SB 350 was to increase the procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 50 percent of its energy portfolio from renewable sources by 2030. The current sources of LADWP's renewable energy include wind, solar, and geothermal sources. These sources account for 30 percent of LADWP's overall energy mix in 2017, which is the most recent year for which data are available.⁶¹ These represent the available off-site renewable sources of energy that would meet the Project's energy demand. LADWP has committed to providing an increasing percentage of its energy portfolio from renewable sources so as to exceed the Renewables Portfolio Standard requirements, by increasing to 50 percent by 2025 (5 years before the 2030 requirement), 55 percent by 2030, and 65 percent by 2036.⁶² The Project would not conflict with LADWP's ability to procure the required amount of renewable energy.

With regard to on-site renewable energy sources, the Project design includes building rooftop areas without landscaping, pool, deck, garden or other improvements that will be constructed as solar-ready for the future installation of on-site solar photovoltaic (PV) or solar water heating (SWH) systems as required by the applicable version of the Los Angeles Green Building Code and the CALGreen Code. Given the Project's rooftop would be designed with amenity space with landscaping, pool, deck, and garden spaces, there would be limited rooftop areas available for solar PV and would likely not provide a meaningful percentage of the Project's electricity demands. Due to the Project Site's location, other types of on-site renewable energy sources would not be feasible on-site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, fuel cells, landfill gas, methane, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Additionally, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Downtown Los Angeles area. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.⁶³ Therefore, the Project would support renewable energy.

As discussed above, natural gas supplied to the Southern California area is mainly sourced from out-of-state with a small portion originating in California. According to the U.S. Energy Information Administration (EIA), the United States currently has approximately 90 years of natural gas reserves based on 2016 consumption.⁶⁴ Compliance with energy standards is expected to result in more efficient use of natural

⁶¹ California Energy Commission, Utility Annual Power Content Labels for 2017, Los Angeles Department of Water and Power.

⁶² Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. ES-3, 2017.

⁶³ California Energy Commission, Wind Projects and Wind Resource Areas, 2018, <http://www.energy.ca.gov/maps/renewable/wind.html>. Accessed June 2018.

⁶⁴ United States Energy Information Administration, how much natural gas does the United States have, and how long will it last? last updated April 9, 2018, <https://www.eia.gov/tools/faqs/faq.php?id=58&t=8>. Accessed June 2018.

gas (lower consumption) in future years.⁶⁵ Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

As stated earlier in the discussion under Threshold a) (1), transportation fuels (gasoline and diesel) are produced from crude oil, which can be provided domestically or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.⁶⁶ Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply. In addition, please see the discussion under Threshold a) (2), above.

Given the evidence presented above, the Project would minimize construction and operational energy and transportation fuel demand to the extent feasible and would not substantially impact energy resources.

- **The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.**

As discussed in Section IV.F, *Greenhouse Gas Emissions*, and Section IV.I, *Land Use and Planning*, of this Draft EIR, the SCAG 2016-2040 RTP/SCS presents the transportation vision for the region through the year 2040 and provides a long-term investment framework for addressing the region's transportation and related challenges. The Project would be generally consistent with and would not conflict with the general land use designation, density, and building intensity outlined in the SCAG 2016-2040 RTP/SCS. Using data collected from local jurisdictions, including General Plans, SCAG categorized existing land uses into "land use types" and then classified sub-regions into one of three land use development categories: urban, compact, or standard. SCAG used each of these three categories to describe the conditions that exist and/or are likely to exist within each specific area of the region.⁶⁷ As shown in Exhibit 13 of the SCAG 2016-2040 RTP/SCS, SCAG categorized the area surrounding the Project Site as an urban area, generally defined as an area where growth would be considered infill or redevelopment, supported by high levels of regional and local transit service, and where the majority of housing units are multifamily and attached single family (townhome), which tend to consume less water and energy than the larger housing types found in greater proportion in less urban locations.⁶⁸ As shown in Exhibit 5.1 of the SCAG 2016-2040 RTP/SCS, the Project Site is also located within a HQTa, which SCAG defines as "areas

⁶⁵ California Energy Commission, 2017, http://www.energy.ca.gov/renewables/tracking_progress/documents/energy_efficiency.pdf. Accessed June 2018.

⁶⁶ BP Global, Oil reserves, 2018, <http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html>. Accessed June 2018.

⁶⁷ Southern California Association of Governments, 2016-2040 RTP/SCS, pp. 20-21, April 2016, <http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx>. Accessed June 2018.

⁶⁸ Southern California Association of Governments, 2016-2040 RTP/SCS Background Documentation, Exhibit 13 and page 42, April 2016, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_SCSBackgroundDocumentation.pdf. Accessed June 2018.

within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours”.⁶⁹ The 2016-2040 RTP/SCS encourages increasing the density of development with mixed use projects within HQTAs, to reduce VMT and trips.⁷⁰ The Project would be consistent with and would not conflict with SCAG’s land use types for the area and would encourage the use of alternative modes of transportation, which could result in a reduction in overall VMT of approximately 35 percent relative to a comparable project that has the same land uses and quantities as the Project, but does not have the location-specific nor the Project design-specific benefits nor the infill nature of the Project that would lead to VMT and trip reductions (refer to the detailed VMT analysis provided in Section IV.F, *Greenhouse Gas Emissions*, and the Project Transportation Study included in Appendix N-2 of this Draft EIR). The Project Site is located at an infill location in the highly urbanized and generally built-out active regional center of Downtown Los Angeles that contains a mix of existing commercial, hotel, studio/production, office, entertainment, and residential uses. The Project Site is located within an identified TPA and is within a quarter-mile of multiple public transportation options, including 16 bus routes across 4 bus operators (Metro bus routes 14, 28, 37, 70, 71, 76, 78, 79, 96 and 378, 770, 728, one Foothill Transit Line, one Santa Monica Transit Line, and two LADOT Commuter Express Lines) and the Metro Silver Line and Blue/Expo Line, which provides convenient access to connections at 7th Street/Metro Center and Union Station transit hubs. The Project Site is also located adjacent to the MyFig Project, the purpose of which is to transform the Figueroa Corridor, inclusive of an extension along W. 11th Street adjacent to the Project Site, into a complete multimodal network that serves the needs of pedestrians, bicyclists, transit riders, and drivers. Further, the proposed LA Streetcar Project that would link the several neighborhoods and districts within the Downtown area, would also run along 11th Street adjacent to the Project Site. The Project would also provide parking for bicycles on-site to encourage utilization of alternative mode of transportation.

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance on mitigating or reducing emissions from land use development projects within its guidance document titled *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for recommended GHG reduction strategies.⁷¹ The Project would be located in the Downtown Los Angeles area, which includes a mix of uses and amenities within walking distance, as well as two regional transit hubs; the project would introduce additional density and uses within close proximity to transit, and the myriad of services and destinations in the area. As such, the Project would be consistent with VMT reduction land use strategies identified by CAPCOA, which include Increased Density, Location Efficiency, Increased Land Use Diversity and Mixed-Uses,

⁶⁹ Southern California Association of Governments, 2016-2040 RTP/SCS, pp, 8, 77, April 2016, <http://scagrtpscscs.net/Pages/FINAL2016RTPSCS.aspx>. Accessed July 2018.

⁷⁰ Southern California Association of Governments, 2016-2040 RTP/SCS, p, 154, April 2016, <http://scagrtpscscs.net/Pages/FINAL2016RTPSCS.aspx>. Accessed July 2018.

⁷¹ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, 2010, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed June 2018.

Increased Destination Accessibility, Increased Transit Accessibility, Improve Design of Development, and Provide Pedestrian Network Improvements (refer to the detailed VMT analysis provided in Section IV.F, *Greenhouse Gas Emissions*, and the Project Transportation Study included in Appendix N-2 of this Draft EIR).

As a result, operation of the Project would encourage reduced transportation energy and provide residents, employees, and visitors with multiple convenient alternative transportation options. Therefore, the Project encourages the use of efficient transportation energy use and efficient transportation alternatives.

Conclusion Regarding Threshold a)

As demonstrated by the analyses of the criteria discussed above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy requirements would not substantially affect local and regional supplies or capacity. The Project's energy usage during peak and base periods would also not conflict with electricity, natural gas, and transportation fuel future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would also be sufficient to meet the needs of Project-related construction and operations. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements such as the Title 24 standards and CALGreen Code, in accordance with the applicable version of these standards at the time of building permit issuance. In summary, the Project's energy demands would not substantially affect available energy supplies and would comply with existing energy efficiency standards. **Therefore, Project impacts related to wasteful, inefficient, and unnecessary consumption of energy would be less than significant during construction and operation. No mitigation is required.**

Threshold b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? Less than Significant Impact.

- **The degree to which the project complies with existing energy standards.**

Construction equipment would comply with federal, State, and regional requirements where applicable. With respect to truck fleet operators, the USEPA and NHTSA have adopted fuel efficiency standards for medium- and heavy-duty trucks. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018 and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.⁷² USEPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year

⁷² California Energy Commission, 2017, http://www.energy.ca.gov/renewables/tracking_progress/documents/energy_efficiency.pdf. Accessed June 2018.

and vehicle type.⁷³ The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards; however, these regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

In addition, construction equipment and trucks are required to comply with CARB regulations regarding heavy-duty truck idling limits of five minutes at a location and the phase-in of off-road emission standards that result in an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in the efficient use of construction-related energy.

Electricity and natural gas usage during Project operations, as reported in Table IV.D-2, would be minimized through incorporation of applicable Title 24 standards, applicable CALGreen requirements, and the Los Angeles Green Building Code, in accordance with the applicable version of these standards at the time of building permit issuance. Furthermore, the Project incorporates energy-conservation measures beyond regulatory requirements as specified in WS-PDF-1; that is, the Project would be designed to meet the USGBC LEED Gold Certification including energy performance optimization features such as reducing building energy demand by a minimum of 5 percent for new construction compared to the Title 24 Building Energy Efficiency Standards (2016) and installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent. The Project would also incorporate water conservation features, such as installing water fixtures that exceed applicable standards, and implementing water-efficient landscaping techniques.

With respect to operational transportation-related fuel usage, the Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. The Project's future residents, visitors, and employees would utilize vehicles that comply with CAFE fuel economy standards and the Pavley standards, which are designed to result in more efficient use of transportation fuels. Transportation fuel efficiency would improve as these future Project residents, visitors, and employees replace their privately owned or leased older vehicle models with newer vehicle models that achieve greater fuel efficiency. As discussed in detail in Section IV.F, *Greenhouse Gas Emissions*, the Project's mixed use design and its increase in density located on an infill site within a TPA and a HQTa in close proximity to existing high-quality transit, including the Metro Blue/Expo Line and multiple bus routes, its proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations, and its highly walkable environment support the conclusion that that the Project has been properly designed and located so that its development would achieve a reduction in VMT greater than the Downtown Los Angeles area average and better than

⁷³ BP Global, Oil reserves, 2018, <http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html>. Accessed June 2018.

the City and statewide averages. Thus, based on the information above, construction and operation of the Project would comply with existing energy standards.

- **The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.**

The current City of LA Green Building Code requires compliance with the Title 24 standards and the CALGreen Code, as amended to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Green Building Code). In addition to compliance with the City's Green Building Code, the Project would incorporate energy-conservation measures beyond City requirements as specified in AQ-PDF-1 and WS-PDF-1. Key Project Design Features that would contribute to electricity efficiencies include incorporating heat island reduction strategies including but not limited to high-reflectance and vegetated roofs for the Project roof areas, and providing water efficient fixtures and landscaping to reduce indoor water use by 40 percent and outdoor water use by 50 percent from the LEED usage baseline. The HVAC system would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain. WS-PDF-1 (Water Conservation Features) as provided in Section IV.O.2, *Water Supply*, of this Draft EIR, would minimize water demand and associated energy needed for water conveyance by including the installation of low-flow and high efficiency showerheads, toilets, and urinals; landscaping consisting of native and drought-tolerant plants; and water efficient drip/subsurface irrigation and micro-spray. Overall, the Project would be designed to meet the USGBC LEED Gold Certification by including such energy performance optimization features as reducing building energy demand by a minimum of 5 percent for new construction as compared to the Title 24 Building Energy Efficiency Standards (2016), reducing water use by 40 percent for indoor water and 50 percent for outdoor water from the LEED usage baseline and installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent.

The City has adopted several plans and regulations to promote the reduction, reuse, recycling, and conversion of solid waste going to disposal systems. These regulations include the City of Los Angeles Solid Waste Management Policy Plan, the RENEW LA Plan that goes beyond regulatory mandates, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

With respect to transportation energy demand, as discussed above, the Project would represent an urban infill development, since it would be undertaken on a currently developed site in an urban area. In addition, it would provide a mixed use development with increased density at a Project Site identified by the City as being within a TPA that is located near existing off-site commercial and retail destinations and in close proximity to existing public transit stops. The Project would result in increased density on the Project Site, would be located in a transportation efficient area, would result in increased land use diversity and mixed-uses on the Project Site by including different types of land uses near one another, would be located in an area that offers access to multiple existing nearby destinations including restaurant, bar, studio/production, office, entertainment, movie theater, and residential uses as well as high quality public transit stations and stops, and would include pedestrian access connectivity within the Project and to/from off-site destinations. These land use characteristics and features would minimize VMT and are included in the transportation fuel demand for the Project's mobile sources. Additional detailed information regarding these land use characteristics and features are provided in Sections IV. B, *Air Quality* and IV.F, *Greenhouse Gas Emissions*. With implementation of these features along with complying with State and local energy efficiency standards, the Project would exceed applicable energy conservation policies and regulations beyond identified in City requirements.

- **Whether the project conflicts with adopted energy conservation plans.**

A detailed discussion of the Project's comparison with the applicable actions and strategies in the Green New Deal is provided in Section IV.F, *Greenhouse Gas Emissions*. As discussed, the Project is designed in a manner that is consistent with and not in conflict with relevant energy conservation plans that are intended to encourage development that results in the efficient use of energy resources. The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the Title 24 standards and CALGreen Code, which have been incorporated into the City of Los Angeles Green Building Code as amended by the City, to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Green Building Code). In addition to compliance with the City's Green Building Code, the Project would incorporate energy-and water conservation measures beyond City requirements as specified in AQ-PDF-1 and WS-PDF-1 and discussed above.

The Project would also be consistent with and not conflict with regional planning strategies that address energy conservation. As discussed above and in Section IV.F, *Greenhouse Gas Emissions*, as well as Section IV.J, *Land Use and Planning*, of this 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 focuses on reducing fossil fuel use by decreasing VMT, encouraging the reduction of building energy use, and increasing use of renewable sources. The Project's mixed use design and its increase in density located on an infill site within a TPA and a HQTa in proximity to high-quality transit, including the Metro

Blue/Expo Line and multiple bus routes, its proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations, and its highly walkable environment support the conclusion from this analysis that the Project has been properly designed and located so that its development would achieve a reduction in VMT greater than the Downtown Los Angeles area average and better than the City and statewide averages. These land use characteristics would minimize the Project's VMT and are included in the transportation fuel demand for the Project's mobile sources. Additional detailed information regarding these land use characteristics are provided in Section IV. B, *Air Quality* and Section IV.F, *Greenhouse Gas Emissions*, of this Draft EIR.

As a result, the Project would implement Project Design Features and incorporate water conservation, energy conservation, landscaping, and other features consistent with applicable actions and strategies in the City's Green New Deal, as well as Project Sustainability Features that go beyond those specified by regulations such as the City's Green Building Ordinance. Therefore, the Project would not conflict with energy conservation plans.

Conclusion Regarding Threshold b)

As demonstrated in the analysis above, the Project would not conflict with energy efficiency or conservation plans. The Project's design would comply with existing energy standards and incorporate Project Design Features to reduce energy consumption. **Therefore, Project impacts related to potential conflict with a state or local plan for renewable energy or energy efficiency would be less than significant during construction and operation. No mitigation is required.**

Section XIX, Utilities and Service Systems, of Appendix G of the State CEQA Guidelines

Threshold a) Require or result in the relocation or construction of new or expanded electric power or natural gas facilities, the construction or relocation of which could cause significant environmental effects? Less than Significant Impact.

(1) Construction

(a) Electricity

As discussed above, construction activities at the Project Site would require limited and minor quantities of electricity for watering, lighting, power tools and other support equipment. Heavy construction equipment would be powered with diesel fuel. Construction electricity usage would replace the existing electricity usage at the Project Site during construction since the existing on-site uses which currently generate a demand for electricity would be removed. As existing power lines are located in the vicinity of the Project Site, temporary power poles would be installed to provide electricity during Project construction. Existing off-site infrastructure would not have to be expanded or newly developed to provide electrical service to the Project Site during construction or

demolition. As discussed above, electricity demand during project construction would be approximately 4.2 percent of the Project's net annual electricity consumption, which would be within the supply and infrastructure capabilities of LADWP. 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 construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

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

(b) Natural Gas

As stated above, construction activities, including the construction of new buildings and hardscape, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be expected to be supplied to support Project construction activities; thus, there would be no expected demand generated by construction; and no requirement for additional infrastructure to serve the Project Site.

(2) Operations

(a) Electricity

As reported in Table IV.D-2, the Project's net increase in operational electricity usage would be 6,847,000 kWh per year, which is approximately 0.026 percent of LADWP's projected sales in fiscal year 2022-2023.⁷⁴ In addition, during peak conditions, the Project would represent approximately 0.013 to 0.026 percent of the LADWP estimated peak load. The LADWP 2017 Power Strategic Long-Term Resource Plan identifies adequate resources (natural gas, coal) to support future generation capacity.⁷⁵ The Project would not require additional infrastructure (i.e., a substation) beyond proposed utilities installed on-site during construction. Therefore, during Project operations, it is expected that LADWP's existing infrastructure, planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand.

⁷⁴ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, Appendix A, Table A-1, 2017.

⁷⁵ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. ES-25, 2017. "...the 2017 SLTRP outlines an aggressive strategy for Los Angeles Department of Water and Power accomplish its goals, comply with regulatory mandates, and provide sufficient resources over the next 20 years given the information presently available..."

(b) *Natural Gas*

As reported in Table IV.D-2, the Project would consume a net increase of 10,813,000 kBtu of natural gas per year, which represents approximately 0.004 percent of the 2022 forecasted consumption in the SoCalGas planning area. SoCalGas expects overall natural gas demand to decline through 2035, even accounting for population and economic growth, with efficiency improvements and the State's transition away from fossil fuel-generated electricity to increased renewable energy. The 2016 California Gas Report states, "SoCalGas projects total gas demand to decline at an annual rate of 0.6% from 2016 to 2035. The decline in throughput demand is due to modest economic growth, CPUC-mandated energy efficiency (EE) standards and programs, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI)."⁷⁶ Based on the Project's small fraction of total natural gas consumption for the region, ongoing SoCalGas long-range planning efforts to provide natural gas for this service region, and sufficient existing infrastructure, it is expected that SoCalGas' existing and planned natural gas supplies and infrastructure would be sufficient to meet the Project's demand for natural gas. Furthermore, the Project Site is located in a highly urban infill location that has been previously developed with five existing single-story commercial buildings and has been served by existing natural gas facilities. As such, new energy facilities are not expected to be required.

Conclusion Regarding Threshold a) of Section XIX, Utilities and Service Systems, of Appendix G of the State CEQA Guidelines

As demonstrated by the analyses above, construction and operation of the Project would not result in an increase in demand for electricity or natural gas services that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. **Therefore, Project impacts related to relocation or expansion of energy infrastructure would be less than significant during construction and operation. No Mitigation is required.**

e) Cumulative Impacts

Cumulative impacts occur when the incremental effects of a proposed project are significant when combined with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. As presented in Chapter III, *General Description of Environmental Setting*, of this Draft EIR, Table III-1, the City has identified 195 related projects located within the vicinity of the Project Site. The geographic context for the analysis of cumulative impacts on electricity is LADWP's service area, and the geographic context for the analysis of cumulative impacts on natural gas in SoCalGas' service area, because the Project and related projects are located within the service boundaries of LADWP and SoCalGas. 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. Growth within these geographies is anticipated to

⁷⁶ California Gas and Electric Utilities, 2016 California Gas Report, p. 64.

increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

(1) Consumption of Energy Resources

(a) *Electricity*

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. As stated above, to generate its electricity load forecast, LADWP relies on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, PEV projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.⁷⁷ In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would therefore account for the Project's and the related projects' electricity demand within its forecasts.⁷⁸ Thus, LADWP forecasts that its total energy sales in the 2022-2023 fiscal year (the Project buildout year) will be 25,919 GWh of electricity.^{79,80} As stated above, based on the Project's estimated net new electrical consumption of 6,847,000 kWh/year, the Project would account for approximately 0.026 percent of LADWP's total projected sales for the Project's buildout year. The Project would also incorporate additional energy efficiency measures outlined in AQ-PDF-1 and WS-PDF-1 (refer to Section IV.B, *Air Quality*, and Section IV.O.2, *Water Supply*, of this Draft EIR). Related projects, as with the proposed Project, would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient or unnecessary use of electricity, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards and CALGreen code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the proposed Project, would also be required to evaluate potential impacts related to local and regional supplies or capacity based on regional growth plans, such as the SCAG 2016 RTP/SCS, and LADWP energy supply projections for long-term planning.

⁷⁷ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. 70, 2017.

⁷⁸ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. 67, 2017.

⁷⁹ Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

⁸⁰ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, Appendix A, Table A-1, 2017.

(b) *Natural Gas*

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. As stated above, based on the 2016 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 2,592 million kBtu per day in 2022 (the Project's buildout year).⁸¹ The Project would account for approximately 0.001 percent of the 2022 forecasted consumption in SoCalGas' planning area. As stated above, SoCalGas forecasts take into account projected population growth and development based on local and regional plans, and the Project's growth and development would not conflict with those projections. The Project would also incorporate additional energy efficiency measures outlined in AQ- PDF- 1 (refer to Section IV.B, *Air Quality*, of this Draft EIR). Related projects, as with the proposed Project, would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient or unnecessary use of natural gas, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards and CALGreen code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the proposed Project, would also be required to evaluate potential impacts related to local and regional supplies or capacity based on regional growth plans, such as the SCAG 2016 RTP/SCS, and SoCalGas energy supply projections for long-term planning.

(c) *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 total net increase of 536,390 gallons of gasoline and 57,601 gallons of diesel per year, or a total of 593,991 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.015 percent of the 2016 annual on-road gasoline- and 0.010 percent of the annual on-road diesel-related energy consumption in Los Angeles County, as shown in Appendix E of this Draft EIR.

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 vehicle miles traveled which would reduce reliance on petroleum fuels.

The Project would not conflict with the energy efficiency policies emphasized by the 2016-2040 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and a reduction in overall VMT. The Project Site is located at an infill

⁸¹ California Gas and Electric Utilities, 2016 California Gas Report, p. 97.

location in the highly urbanized and generally built out active regional center of Downtown Los Angeles near a mix of existing commercial, hotel, studio/production, office, entertainment, and residential uses, and within an identified TPA that is within a quarter-mile of multiple public transportation options, including Metro bus routes (e.g., 14, 28, 37, 70, 71, 76, 78, 79, 96 and 378, 770, 728, one Foothill Transit Line, one Santa Monica Transit Line, and two LADOT Commuter Express Lines) and the Metro Blue/Expo Line, which provides convenient access to Downtown Los Angeles and connections to Santa Monica and Long Beach. Therefore, operation of the Project would provide residents, employees, and visitors with alternative transportation options, and the implementation of construction features would minimize traffic flow congestion and reduce idling times and construction transportation fuel use.

By its very nature, the 2016-2040 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects. Related projects would be required under CEQA to evaluate if their respective developments would conflict with the energy efficiency policies emphasized by the 2016-2040 RTP/SCS, such as the per capita VMT targets, promotion of alternative forms of transportation, proximity to public transportation options, provisions for encouraging multi-modal and energy efficient transit such as by accommodating bicycle parking and EV chargers at or above regulatory requirements.

(d) Conclusion

Based on the analysis provided above, the Project's impacts related to the wasteful, inefficient, or unnecessary consumption of energy (i.e., electricity, natural gas, and transportation energy) would not be cumulatively considerable during construction or operation. **As such, the Project would not result in a cumulatively considerable contribution to a significant impact related to wasteful, inefficient or unnecessary use of energy.**

(2) Consistency with State or Local Plans

LADWP's Power Integrated Resource Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. LADWP is subject to Renewable Portfolio Standards and related projects would consume power generated by a mix of renewable energy sources. In addition, as with the Project, future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the Title 24 standards and CALGreen Code, the City of Los Angeles Los Angeles Green Building Code, as amended to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Green Building Code), and incorporate mitigation measures, as necessary.

The Project's effect on transportation fuel demand would be minimized by future improvements to vehicle fuel economy pursuant to federal and State regulations. As discussed previously, the Project would support statewide efforts to improve

transportation energy efficiency by locating at an infill location close to jobs, restaurants, and other destinations. Siting land use development projects at infill sites is consistent with the State's overall goals to reduce VMT as outlined in the 2016-2040 RTP/SCS for the region, which seeks improved access and mobility by placing "destinations closer together, thereby decreasing the time and cost of traveling between them."⁸² Related projects would need to demonstrate consistency with these goals and incorporate project design features or mitigation measures as required under CEQA, which would also ensure related projects contribute to transportation energy efficiency. Therefore, the Project and related projects would incorporate land use characteristics consistent with state goals for reducing VMT, or incorporate mitigation measures under CEQA.

(3) Energy Infrastructure

(a) *Electricity*

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by LADWP are ongoing. As described in LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards.⁸³ The 2017 Power Strategic Long-Term Resource Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements.⁸⁴ In addition as discussed above, LADWP generates its load forecast based on multiple forms of data from various agencies.⁸⁵ In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would therefore account for the Project's and the related project's electricity demand within its projections.⁸⁶ Development projects within the LADWP service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary.

Each of the related projects would be reviewed by the local utility provider to identify necessary electricity service connections to meet the needs of their respective projects. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project area. Related projects would also be required to evaluate electricity demands and coordinate with the local utility provider for providing adequate service, in accordance with future projected supplies, to

⁸² Southern California Association of Governments, 2016 RTP/SCS, p. 16, April 2016.

⁸³ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. ES-2, 2017.

⁸⁴ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. ES-2, 2017.

⁸⁵ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. 70, 2017.

⁸⁶ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, p. 67, 2017.

each of the related project sites. Furthermore, the related projects are generally infill projects in a highly urbanized area already served by existing facilities and are generally residential, mixed-use, and commercial projects and not high-energy demand facilities such as heavy industrial uses.

(b) Natural Gas

Natural gas infrastructure is typically expanded in response to increasing demand and system expansion and improvements by SoCalGas occur as needed.⁸⁷ It is expected that SoCalGas would continue to expand delivery capacity if necessary to meet demand increases within its service area. Development projects within its service area, including the Project and related projects also served by the existing SoCalGas infrastructure, would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate.

Each of the related projects would be reviewed by SoCalGas to identify necessary natural gas service connections to meet the needs of their respective projects. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the natural gas infrastructure in the Project area. Related projects would also be required to evaluate natural gas demands and coordinate with the local utility provider for providing adequate service, in accordance with future projected supplies, to each of the related project sites. Furthermore, the related projects are generally infill projects in a highly urbanized area already served by existing facilities and are generally residential, mixed-use, and commercial projects and not high-energy demand facilities such as heavy industrial uses.

(c) Conclusion

Based on the analyses provided above, the Project would not contribute to cumulative impacts related to energy (i.e., electricity, natural gas) supply or distribution infrastructure capabilities that could result in the need for the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. **As such, the Project's impacts would not be cumulatively significant, and its cumulative energy infrastructure impacts are concluded to be less than significant.**

f) Mitigation Measures

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

g) Level of Significance After Mitigation

Not applicable as impacts are less than significant without mitigation.

⁸⁷ Southern California Gas Company, History of SoCalGas (2018), <https://www.socalgas.com/company-history>. Accessed June 2018.

IV.E Geology and Soils – Paleontological Resources

1. Introduction

This section evaluates potential existing geologic and soils hazards of the Project, including the potential for the Project to cause direct or indirect impacts associated with existing environmental conditions that could cause, in whole or in part, fault rupture, ground shaking, liquefaction of soils, expansion of soils, and/or landslide. Impacts regarding these topics are based on information and findings in the *Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018 (Preliminary Geotechnical Report)*, prepared by GeoDesign Incorporated, which is provided as Appendix F-2 of this Draft EIR. The Preliminary Geotechnical Report was approved by the Los Angeles Department of Building and Safety in March 2018.¹

This section also evaluates the potential for the Project to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. This component of the analysis is primarily based on a *Paleontological Resources Assessment Report* that was prepared by ESA, and which is included as Appendix F-3 of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

(1) Federal

(a) Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1977 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended by the Earthquake Hazards Reduction Program Reauthorization Act of 2004 (Public Law 108-360).

NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity;

¹ City of Los Angeles, Department of Building and Safety, Preliminary Soil Report Approval Letter, March 28, 2018. This letter is also included as Appendix F-1.

and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help inform and guide local planning and building code requirements such as emergency evacuation responsibilities and seismic code standards such as those to which a proposed project would be required to adhere.

(2) State

(a) *Alquist-Priolo Earthquake Act*

Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act) was signed into law December 22, 1972 (revised in 1994) and codified into State law in the Public Resources Code as Division 2, Chapter 7.5 to address hazards from earthquake fault zones. The purpose of this law is to mitigate the hazard of surface fault rupture by regulating development near active faults. As required by the Act, the State has delineated Earthquake Fault Zones (formerly Special Studies Zones) along known active faults in California which vary in width around the fault trace from about 200 to 500 feet on either side of the fault trace. Cities and counties affected by the zones must regulate certain development projects within the zones.

(b) *Seismic Hazards Mapping Act*

In order to address the effects of strong ground shaking, liquefaction, landslides, and other ground failures due to seismic events, the State of California passed the Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690-2699). Under the Seismic Hazards Mapping Act, the State Geologist is required to delineate “seismic hazard zones.” Cities and counties must regulate certain development projects within these zones until the geologic and soil conditions of their project sites have been investigated and appropriate mitigation measures, if any, have been incorporated into development plans. The State Mining and Geology Board provides additional regulations and policies to assist municipalities in preparing the Safety Element of their General Plans and to encourage the adaptation of land use management policies and regulations to reduce and mitigate seismic hazards to protect public health and safety. Under Public Resources Code Section 2697, cities and counties must require, prior to the approval of a project located in a seismic hazard zone, submission of a geotechnical report defining and delineating any seismic hazard.

(c) *California Building Code*

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress facilities, and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for

coordinating all building standards. Under State law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The 2016 edition of the CBC is based on the 2015 International Building Code (IBC) published by the International Code Council. The code is updated triennially, and the 2016 edition of the CBC was published by the California Building Standards Commission in July, 2016, and took effect starting January 1, 2017. The 2016 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, *Minimum Design Loads for Buildings and Other Structures*, which provides requirements for general structural design and includes means for determining earthquake loads² as well as other loads (such as wind loads) for inclusion into building codes. Seismic design provisions of the building code generally prescribe minimum lateral forces applied statically to the structure, combined with the gravity forces of the dead and live loads of the structure, which the structure then must be designed to withstand. The prescribed lateral forces are generally smaller than the actual peak forces that would be associated with a major earthquake. Consequently, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage.³ Conformance to the current building code does not constitute any kind of guarantee that substantial structural damage would not occur in the event of a maximum magnitude earthquake. However, it is reasonable to expect that a structure designed in accordance with the seismic requirements of the CBC should not collapse in a major earthquake.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a seismic design category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site; SDC ranges from A (very small seismic vulnerability) to E/F (very high seismic vulnerability and near a major fault). Seismic design specifications are determined according to the SDC in accordance with Chapter 16 of the CBC. Chapter 18 of the CBC covers the requirements of geotechnical investigations (Section 1803), excavation, grading, and fills (Section 1804), load-bearing of soils (1806), as well as foundations (Section 1808), shallow foundations (Section 1809), and deep foundations (Section 1810). For Seismic Design Categories D, E, and F, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls,

² A load is the overall force to which a structure is subjected in supporting a weight or mass, or in resisting externally applied forces. Excess load or overloading may cause structural failure.

³ American Society of Civil Engineers, Minimum Design and Loads for Buildings and Other Structures, https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/dd_jardins/DDJ-148%20ASCE%207-10.pdf. Accessed May 2018.

liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses measures to be considered in structural design, which may include ground stabilization, selecting appropriate foundation type and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions.

Chapter 18 (Section 1803.5.3) also describes procedures for analyzing expansive soils, and establishes criteria for whether expansive soils are located within a development site, based upon the expansion and contraction characteristics of soils present when exposed to moisture.

(3) City of Los Angeles

(a) *Los Angeles General Plan Safety Element*

The City's General Plan Safety Element, which was adopted in 1996, addresses public safety risks due to natural disasters, including seismic events and geologic conditions, and sets forth guidance for emergency response during such disasters. The Safety Element also provides maps of designated areas within Los Angeles that are considered susceptible to earthquake-induced hazards, such as fault rupture and liquefaction. In 2014, the State of California released current official maps for the Hollywood Quadrangle Earthquake Zone of Required Investigation, and delineated boundaries of earthquake fault zones and seismic hazard zones. In addition, the Los Angeles Department of Building and Safety (LADBS) maintains more detailed mapping than the generalized maps in the Safety Element, and provides information regarding designations for individual site parcels within the City's Zone Information and Map Access System (ZIMAS).

The last section of the Safety Element contains goals, objectives, policies that are broadly stated to reflect the comprehensive scope of the Emergency Operations Organization (EOO), the City agency (program) which implements the Safety Element. As such it includes objectives with supporting policies to implement comprehensive hazard mitigation plans and programs, emergency response plans and disaster recovery plans that are coordinated with one another. It includes no objectives or policies that pertain to the review of new development projects to avoid or mitigate geologic and seismic hazards.

(b) *General Plan Conservation Element*

The Conservation Element of the City of Los Angeles General Plan recognizes paleontological resources in Section 3: "Archeological and Paleontological" (II-3), specifically the La Brea Tar Pits, and identifies protection of paleontological resources as an objective (II-5). The General Plan identifies site protection as important, stating, "Pursuant to CEQA, if a land development project is within a potentially significant paleontological area, the developer is required to contact a bona fide paleontologist to

arrange for assessment of the potential impact and mitigation of potential disruption of or damage to the site. If significant paleontological resources are uncovered during project execution, authorities are to be notified and the designated paleontologist may order excavations stopped, within reasonable time limits, to enable assessment, removal or protection of the resources.”

(c) *Los Angeles Municipal Code*

Chapter IX of the Los Angeles Municipal Code (LAMC) contains the City’s Building Code, which incorporates by reference the CBC, with City amendments for additional requirements. The LADBS is responsible for implementing the provisions of the LAMC. To that end, LADBS issues building and grading permits for construction projects. Building permits are required for any building or structure that is erected, constructed, enlarged, altered, repaired, moved, improved, removed, converted, or demolished. Grading permits are required for all grading projects other than those specifically exempted by the LAMC. The function of City’s Building Code, which comprises Chapter IX of the LAMC, is to protect life safety and ensure compliance with the LAMC. The sections of Chapter IX address numerous topics including earthwork and grading activities, import and export of soils, erosion and drainage control, and general construction requirements that address flood and mudflow protection, slides and unstable soils. Additionally, the LAMC includes specific requirements addressing seismic design, grading, foundation design, geologic investigations and reports, soil and rock testing, and groundwater. Specifically, Chapter IX LAMC Div. 18, Sec. 91.1803,⁴ requires that a Final Geotechnical Report with final design recommendations prepared by a California-registered geotechnical engineer and submitted to the LADBS for review prior to issuance of a grading permit. Final foundation design recommendations must be developed during final Project design, and other deep foundation systems that may be suitable would be addressed in the Final Geotechnical Report. All earthwork (i.e., excavation, site preparation, any fill backfill placement, etc.) must be conducted with engineering control under observation and testing by the Geotechnical Engineer and in accordance by the LADBS.

b) Existing Conditions

(1) Regional Geologic Setting

Regionally, the Project Site is located in the northern portion of the Peninsular Ranges Geomorphic Province and south of the Transverse Ranges Geomorphic Province. The Peninsular Ranges are characterized by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-trending reverse faults that form the southern margin of the neighboring Transverse Ranges province.

⁴ California Building Code, 2016 Part 2, Volume 1, Chapter 18A, Soils and Foundations, Section 1803A, Geotechnical Investigations.

The Transverse Ranges are characterized by roughly east-west trending mountains and the northern and southern boundaries are formed by reverse fault scarps. The convergent deformational features of the Transverse Ranges are a result of north-south shortening due to plate tectonics. This has resulted in local folding and uplift of the mountains along with the propagation of thrust faults. The intervening valleys have been filled with sediments derived from bordering mountains.

(2) Project Site – Surface Conditions

The Project is located in a relatively flat area of the western Los Angeles Basin. Currently, the Project Site, like most of the Downtown area, is fully developed, containing five buildings and paved surface parking areas. As such, the Project Site presents no geologic outcroppings or unique geologic features.

(3) Project Site – Geologic Materials

According to the Preliminary Geotechnical Report, the Project Site is underlain by fill soils to depths of approximately 7 to 9.5 feet below ground surface (bgs).⁵ The artificial fill materials consists of clayey sand, sandy clay, and silty sand with various debris fragments including concrete, wood, and brick. Native soil underlying the fill consists of medium dense to very dense, silty sand; clayey sand; and sand with intermittent layers of medium stiff to hard, sandy silt; sandy clay; and silty clay. Gravel and cobbles are present between approximately 10 and 28 feet bgs.

Below depths of approximately 26.5 to 28 feet bgs, alternating layers of stiff to hard silt or clay and medium dense to very dense, silty sand; sand with silt; and sand were encountered in each current boring. Gravel and cobbles were also encountered periodically within the granular layers in the deeper soil profile. These data that were collected from the Project Site are consistent with nearby borings from a previous investigation at 1105 South Olive Street that has been incorporated into the current study.⁶

Bedrock materials were not encountered in the borings advanced as part of the preliminary geotechnical investigation, which went to maximum depth of 125 feet bgs. However, according to geologic maps reviewed for the Preliminary Geotechnical Report and discussed therein, the alluvial materials present at the Project Site are underlain by siltstone bedrock known as the Puente Formation at depths below the measured boring level.⁷

⁵ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, prepared by GeoDesign Incorporated, March 2018. Included in Appendix F of this Draft EIR.

⁶ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, prepared by GeoDesign Incorporated, March 2018.

⁷ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, prepared by GeoDesign Incorporated, March 2018.

(4) Expansive Soils

Expansive soils are characterized by their potential “shrink-swell” behavior which is the cyclical change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the process of periodic wetting and drying. Clay minerals such as smectite, bentonite, montmorillonite, beidellite, vermiculite and others are known to expand with changes in moisture content. The higher the percentage of expansive minerals present in near surface soils, the higher the potential for significant expansion. The greatest effects occur when there are significant or repeated moisture content changes. This change in volume can exert enough force to cause damage to buildings and other structures. According to the conclusions of the Preliminary Geotechnical Report for the Project Site, the subsurface soils encountered at the Project Site do not exhibit expansive characteristics.

(5) Groundwater

Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors not evident at the time of the measurements. Rainfall seepage percolates downward through porous soils to the groundwater table. Intermittent and discontinuous shallow zones of groundwater seepage⁸ that is disconnected from the area’s water table and groundwater flow, i.e., perched water, are often present in the downtown Los Angeles area. Perched groundwater⁹ on dense silt and clay layers is not uncommon in this region of the Project Site and can result in highly variable groundwater conditions.

Borings at the Project Site in 2015 encountered groundwater seepage at depths of 60 and 85 feet bgs. The groundwater table was encountered at approximately 120 feet bgs.¹⁰ Based on groundwater data supplied by the Seismic Hazard Zone Report of the Hollywood Quadrangle, by the California Geological Survey (CGS) (SHZR 026), the historical high groundwater level occurs between 100 and 120 feet bgs, consistent with the observations of the deepest boring from the preliminary geotechnical investigation.

(6) Geologic Hazards

(a) *Faulting and Seismicity*

Based on criteria established by the CGS, faults may be categorized as active, potentially active, or inactive. Active faults are those which show evidence of surface displacement within the last 11,000 years (Holocene-age). Potentially-active faults are those that show evidence of most recent surface displacement within the last 1.6 million years (Quaternary- age). Faults showing no evidence of surface displacement within the last

⁸ Groundwater seepage occurs when conditions cause moisture or wetness at the surface from an underlying groundwater aquifer.

⁹ Perched groundwater is a localized area of an impermeable or low permeable subsurface layer suspends groundwater above the regional groundwater table.

¹⁰ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018. Included in Appendix F of this Draft EIR.

1.6 million years are considered inactive for most purposes, with the exception of critical buildings or structures (e.g., hospitals, communication centers and emergency response centers). The location of the Project Site with respect to regional faults is provided in **Figure IV.E-1, Regional Fault Map**.

The Alquist-Priolo Earthquake Fault Zoning Act defines “active” and “potentially active” faults using the same age-based criteria as the CGS.¹¹ Established state policy establishes zones only for those active faults that have direct evidence of movement within the last 11,000 years. It is this time interval of fault movement that the CGS considers as a characteristic for faults that have a relatively high potential for ground rupture in the future. CGS policy is to delineate a boundary zone on either side of a known fault trace, called the Earthquake Fault Zone. The delineated width of an Earthquake Fault Zone is based on the location precision, complexity, or regional significance of the fault and can be between 200 and 500 feet wide on either side of the fault trace. As noted in the Preliminary Geotechnical Report, the Project Site is not located within or in proximity to any designated Earthquake Fault Zone.

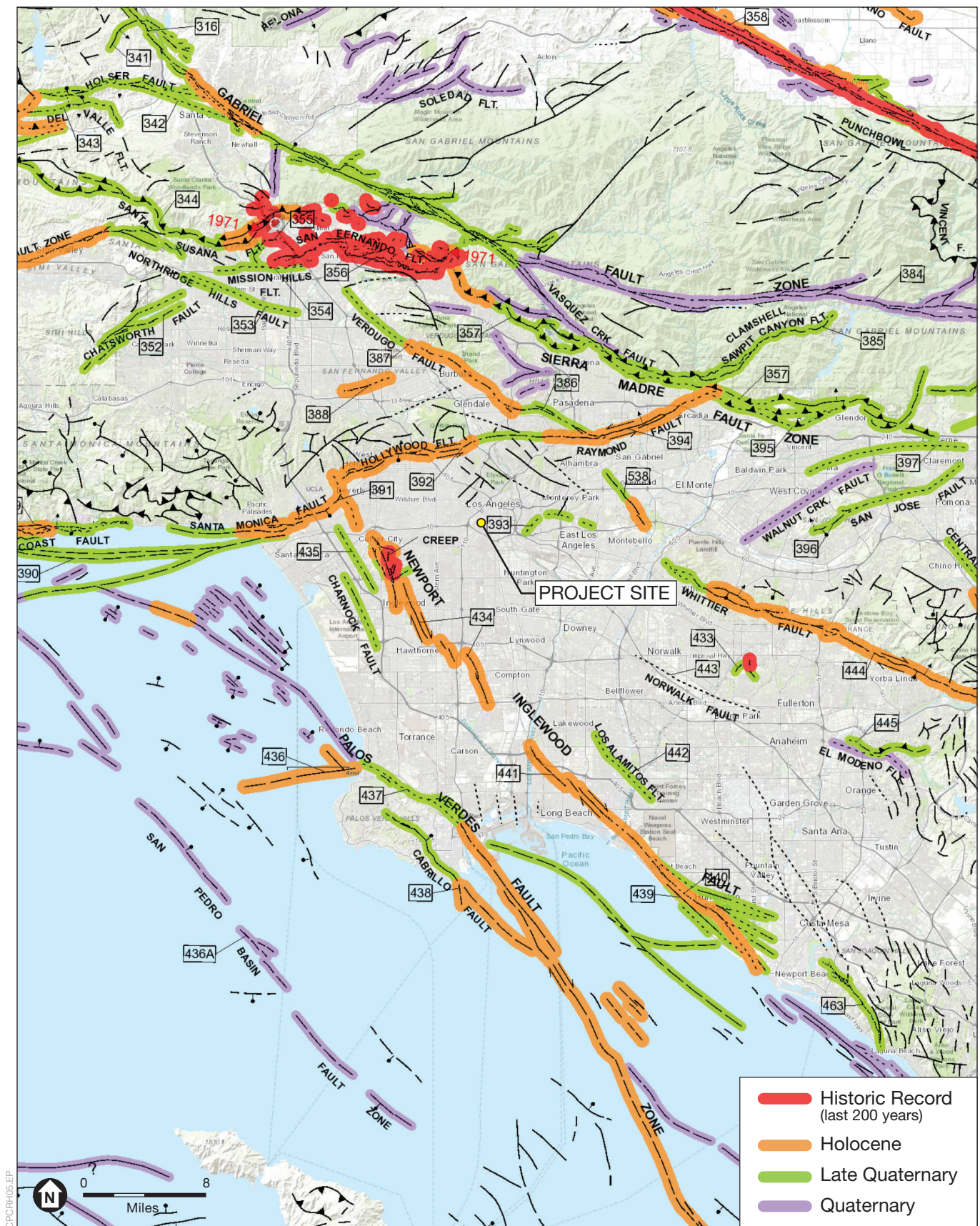
(i) *Active Faults*

The San Andreas Fault system forms a major plate tectonic boundary along the western portion of North America. The system is characterized by a series of northwest trending faults with a predominant right lateral sense of movement. At its closest point the San Andreas Fault system is located approximately 35 miles northeast of the Project Site.

The Hollywood fault is located approximately 4.8 miles north-northwest of the Project Site. The Hollywood fault places basement bedrock of the Santa Monica Mountains over alluvial-fan deposits of the northern Los Angeles basin. Subsurface and geomorphic investigations indicate that the fault extends along the southern flank of the Santa Monica Mountains, from the Los Angeles River to northwestern Beverly Hills.¹² Bedrock outcrops along Sunset Boulevard, previously thought to represent the surface trace of the fault, were determined to be a former seacliff with the active trace of the fault located farther to the south. The Hollywood fault is an active fault and included as part of the Alquist-Priolo Earthquake Fault Zones.

¹¹ Hart, E.W., Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 1990, interim revision 2007.

¹² Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018. Included in Appendix F of this Draft EIR.



SOURCE: County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | California Geological Survey, C.W. Jennings, W.A. Bryant, 2010

1045 Olive Project

Figure IV.E-1
Regional Fault Map

While some literature combines both the Hollywood and Santa Monica faults together, these faults are treated as different faults and are modelled as separate faults in terms of characteristic magnitudes, distances from a site, and subsurface geometry. These fault-specific characteristics are used in determining the level of ground shaking at a site. Regardless, neither the Hollywood nor Santa Monica fault poses fault rupture risk to the Project Site due to the distance from each fault to the Project Site.¹³

The Newport-Inglewood fault zone is a system of northwest trending right-lateral faults located approximately 6 miles west-southwest of the site. The Newport-Inglewood extends offshore and trends into the Rose Canyon fault system.

The Raymond fault is located approximately 6.3 miles to the northeast of the Project Site. However, the probability of an earthquake occurring on this fault during the expected lifetime of the Project is considered remote.¹⁴

The Verdugo Fault is located approximately 7.3 miles northeast of the Project Site. The Verdugo Fault runs along the southwest edge of the San Rafael and Verdugo Mountains. The fault displays a reverse motion. Although considered active by the County of Los Angeles and the U.S. Geological Survey, the fault is not designated with an Earthquake Fault Zone by the CGS.

(ii) *Blind Thrust Faults*

The Los Angeles Basin is underlain locally by a system of buried thrust faults that terminate at a depth of approximately 1.9 miles (3 kilometers). These faults do not present a surface rupture hazard although they are capable of producing strong ground shaking.

The Upper Elysian Park thrust is a blind thrust fault located above the Los Angeles segment of the Puente Hills Thrust (PHT) system. The PHT is a system of buried thrust fault ramps that extend from beneath Los Angeles to the Puente Hills of eastern Los Angeles County and Orange County. The active Upper Elysian Park fault is located approximately 3 miles (4.8 kilometers) from the Project Site as measured to the closest portion of the fault plane. The Elysian Park anticline and associated escarpments (MacArthur Park, Coyote Pass) and Montebello anticline provide evidence of activity during the Pliocene or Pleistocene time periods (between 5 million and 0.126 million years ago) on this fault. The vertically projected plane boundaries of this fault, are located northeast of the Project Site. Identified by subsurface data including seismic reflection profiles, petroleum well data, and precisely located seismicity, the PHT is expressed at the surface as a series of contractional (shortening and thickening) folds. Fault segments designated for the PHT include the Los Angeles, Santa Fe Springs, and Coyote Hills segments. A study utilizing borehole data collected from sediments overlying the central

¹³ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018. Included in Appendix F of this Draft EIR.

¹⁴ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018.

segment of the PHT indicates that subtle folding extends to the near surface locally and reveals four events in the past 11,000 years. The Los Angeles segment of the PHT underlies throughout downtown Los Angeles at a depth of approximately 2.5 miles (4 kilometers).

(iii) *Ground Surface Rupture*

Based on research of available literature and results of geologic reconnaissance of the Project Site, no known active faults or potentially active faults underlie the Project Site.¹⁵ In addition, as noted above, the Project Site is not located within, or in proximity to, an Alquist-Priolo Earthquake Fault Zone.

(b) *Site Stability - Liquefaction, Lateral Spreading, and Seismic Settlement*

Liquefaction involves the sudden loss in strength of saturated, cohesionless soils caused by cyclic loading, such as that produced by an earthquake, that increases pore water pressure. This increase in pore water pressure can temporarily transform the soil into behaving more like a fluid than a solid and can also cause lateral ground deformations (lateral spreading).¹⁶ Typically, liquefaction occurs in areas where there are loose to medium dense non-cohesive soils and the depth to groundwater is less than 50 feet from the surface. Seismic shaking can also cause soil compaction and ground settlement without liquefaction occurring, including settlement of dry sands above the water table.

According to the State of California Seismic Hazard Zones Map of the Hollywood Quadrangle, *Liquefaction Hazard Map*, the Project Site is not located within a State of California seismic hazard liquefaction zone.¹⁷ Further, as stated in the Preliminary Geotechnical Report, based on the historic high groundwater level (between 100 and 120 feet bgs) and the very dense nature of the underlying soils, liquefaction is not considered a hazard at the Project Site.¹⁸

(c) *Lateral Spreading*

Lateral spreading is the most pervasive type of liquefaction-induced ground failure. During lateral spread, blocks of mostly intact, surficial soil displace downslope or towards a free face along a shear zone that has formed within the liquefied sediment. Due to the very dense nature of the underlying soils and bedrock, and the depth to historic groundwater

¹⁵ Hart, E.W., Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 1990, interim revision 2007.

¹⁶ Lateral spreading is the horizontal displacement of surficial blocks of sediments resulting from liquefaction in a subsurface layer that occurs on slopes ranging between 0.3 and 3 percent and commonly displaces the surface by several meters to tens of meters.

¹⁷ State of California, Seismic Hazard Zone Report for the Hollywood 7.5-Minutue Quadrangle, Los Angeles County, <https://planning.lacity.org/eir/ConventionCntr/DEIR/files/references/California%20Division%20of%20Mines%20and%20Geology,%20%20Hollywood%20Quadrangle,%20.pdf>. Accessed May 2018.01998

¹⁸ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018. Included in Appendix F of this Draft EIR.

level, the underlying soils would not be prone to liquefaction. Therefore, lateral spreading is also considered to be remote.

(d) *Seismically-Induced Settlement*

Seismically-induced settlement or compaction of dry or moist, cohesionless soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures. Some seismically-induced settlement of the proposed structures could be expected as a result of strong ground shaking. According to the findings of the Preliminary Geotechnical Report, settlement of the proposed foundation could be on the order of 2 inches or less.

(e) *Landslides*

Based on the County of Los Angeles General Plan, and City of Los Angeles ZIMAS system, the Project Site is not located within an area identified as having a potential for slope instability. Significant natural slopes are not present on the Project Site and the potential for slope instability and/or landslides is very low.

(7) Paleontological Context

The soil lying below the Project Site's upper level of artificial fill is Holocene-aged younger Quaternary alluvium. Beneath the younger alluvium, the Project Site is underlain by Pleistocene-aged older Quaternary Alluvium and the Pliocene-aged Fernando Formation. The depth at which younger alluvium transitions to older alluvium in the Project Site has not been determined.

A records search performed by the Natural History Museum of Los Angeles County (NHMLAC) to identify the occurrence of previously recorded fossil finds and the potential for fossils to occur within the Project Site and local vicinity. The records search concluded that there are no fossil localities within the Project Site; however, a number of vertebrate fossils are known from similar sedimentary deposits in Downtown Los Angeles Los Angeles.¹⁹

Late Holocene- and Pleistocene-aged older alluvium (Qoa) sediments have yielded fossils of numerous Ice Age animals in the greater Los Angeles area. The closest locality known to the NHMLAC is approximately 0.18 mile southeast of the Project Site, where a fossil horse (*Equus*) was recovered from 43 feet below ground surface. Around three miles northeast of the Project Site near the Golden State Freeway (I-5), fossil specimens of pond turtle, (*Clemmys mamorata*), ground sloth (*Paramylodon harlani*), mastodon (*Mammuth americanum*), mammoth (*Mammuthus imperator*), horse (*Equus*), and camel (*Camelops*) were recovered from a depth of 20-35 feet below the surface. Just north of this locality, 3.13 miles northeast of the Project Site, excavations for a storm drain

¹⁹ McLeod, S. 2017. Re: Paleontological resources for the proposed 1045 South Olive Street Project, Project, in the City of Los Angeles, Los Angeles County, project area. Letter response to Sara Dietler. November 30, 2017. Included in Appendix F-3 of this Draft EIR.

recovered fossil specimens of turkey (*Meleagris californicus*), sabre-toothed cat (*Smilodon fatalis*), horse (*Equus*), and deer (*Odocoileus*) at an unstated depth.

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to cultural resources, the City has determined to use the questions in Appendix G of the State CEQA Guidelines. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, a project would have a significant impact related to geology and soils if it would:

- a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault. Refer to Division of Mines and Geology²⁰ Special Publication 42.***
 - ii. Strong seismic ground shaking***
 - iii. Seismic-related ground failure, including liquefaction***
 - iv. Landslides;***
- b) *Result in substantial soil erosion or the loss of topsoil;***
- c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.***
- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.***
- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.***

²⁰ California Department of Conservation. California Geological Survey, <https://www.conservation.ca.gov/cgs>. Accessed September 2019.

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate geology and soils, as well as paleontological resources:

(a) *Geologic Hazards*

- Cause or accelerate geologic hazards, which would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury.

(b) *Sedimentation and Erosion*

- Constitute a geologic hazard to other properties by causing or accelerating instability from erosion; or
- Accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition which would not be contained or controlled on-site.

(c) *Landform Alteration*

- Cause one or more distinct and prominent geologic or topographic features to be destroyed, permanently covered, or materially and adversely modified as a result of the project. Such features may include, but are not limited to, hilltops, ridges, hillslopes, canyons, ravines, rock outcrops, water bodies, streambeds, and wetlands.

(d) *Paleontological Resources*

- Whether, or the degree to which, the project may result in the permanent loss of, or loss of access to, a paleontological resource; and
- Whether the paleontological resource is of regional or statewide significance.

b) Methodology

(1) Geologic and Soil Hazards

The analysis of impacts related to Geology and Soil hazards is based in part on the findings of the *Preliminary Geotechnical Report*, Appendix E-2 of this Draft EIR. Information, conclusions, and recommendations in the Preliminary Geotechnical Report are based on site specific data, reconnaissance including the drilling of borings at the Project Site with laboratory testing of bored materials, records review of nearby sites, and a review of available resources from the CGS and U.S. Geological Survey. The findings of the Preliminary Geotechnical Report are used to inform the analysis and determinations in this Draft EIR section. The Preliminary Geotechnical Report also includes geotechnical recommendations for the Project building design. The following discussion about what is included in the Preliminary Geotechnical Report is for information purposes only. The Preliminary Geotechnical Report was prepared according to requirements established by LADBS. The requirements are based on the CBC provision in LADBS Information Bulletin P/BC 2014-123 titled *Alternative Design Procedure for Seismic Analysis and Design of Tall Buildings and Buildings Utilizing*

Complex Structural Systems.²¹ Per the established procedures, the Preliminary Geotechnical Report evaluates the underlying geologic and soil conditions to determine potential hazardous geotechnical conditions and identifies foundation requirements needed to ensure that new building construction can be implemented in a manner that meets building code requirements and ensures safety for all future occupants and visitors to the greatest extent possible under the code. The Preliminary Geotechnical Report provides sufficient detail to determine whether the Project Site is suitable for the intended uses and whether more detailed studies are required to address specific geological issues. The report also identifies considerations to be taken into account in the design of building foundations. This information is used to draw conclusions as to whether the Project would exacerbate existing environmental conditions that could cause in whole or in part any geological or soils hazards.

According to Chapter IX LAMC Div. 18, Sec. 91.1803, a Final Geotechnical Report must also be prepared based on the final construction and building plans prepared by the Applicant and reviewed by the City prior to issuance of building permits. Based on the ground conditions and building design, the Final Geotechnical Report would include specific recommendations for site preparation, excavation, foundation design and shoring/retaining wall specifications that are consistent with the recommendations of the Preliminary Geotechnical Report.

(2) Paleontological Resources

The analysis of paleontological resources is based on the *Paleontological Resources Assessment Report* (Appendix F-3), which includes a review of the NHMLAC paleontological records search results and other documentation regarding disturbances to the Project Site and its subsurface geological conditions. The record search identified the geological formations underlying the Project Site, whether any paleontological localities have previously been identified within the Project Site or in the same or similar formations near the Project Site, and the potential for excavations associated with the Project to encounter paleontological resources.

The analysis is based on guidelines established by the Society of Vertebrate Paleontology (SVP) for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources. The SVP outlined criteria for screening the paleontological potential of rock units (High, Undetermined, Low) and established assessment and mitigation procedures tailored to such potential.

²¹ City of Los Angeles Department of Building and Safety, Alternative Design Procedure (Performance-Based Design) for Seismic Analysis and Design of Tall Buildings and Buildings Utilizing Complex Structural Systems, <https://www.ladbs.org/docs/default-source/publications/information-bulletins/building-code/alternative-design-procedure-for-seismic-analysis-and-design-of-tall-buildings-and-buildings-utilizing-complex-structural-systems-ib-p-bc2017-123.pdf?sfvrsn=15>. Accessed May 2018.

As defined by the SVP significant nonrenewable paleontological resources are:

Fossils and fossiliferous deposits here restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or paleobotanical fossils except when present within a given vertebrate assemblage. Certain invertebrate and plant fossils may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by lead agencies or local governments.

As defined by the SVP, significant fossiliferous deposits are:

A rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information). Paleontologic resources are considered to be older than recorded history and/or older than 5,000 years BP [before present].

All identifiable vertebrate fossils are considered to have significant scientific value because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution.

Fossils are contained within surficial sediments or bedrock, and are therefore not observable or detectable unless exposed by erosion or human activity. A geologic unit known to contain significant fossils is considered to be “sensitive” to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit will either directly or indirectly disturb or destroy fossil remains.

In the absence of surface fossils, the assessment of rock unit sensitivity is based on the known potential to produce significant fossils elsewhere within the same geologic unit (both within and outside of the study area), a similar geologic unit, or based on whether the unit in question was deposited in a type of environment that is known to be favorable for fossil preservation. Monitoring by experienced paleontologists greatly increases the probability that fossils will be discovered during ground-disturbing activities and that, if the fossils are significant, that successful mitigation and salvage efforts may be undertaken.

c) Project Characteristics

The Project would be subject to the regulatory measures cited above for the protection of public and building safety. Assurance of Project compliance would be accomplished through provision of a Final Geotechnical Report prepared by the Applicant and reviewed by the City prior to issuance of building permits, pursuant to Chapter IX LAMC Div. 18, Sec. 91.1803.

Beyond the regulatory compliance, no specific Project Design Features are proposed with regard to geology, soils, and seismicity.

d) Analysis of Project Impacts

Threshold a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault. Refer to Division of Mines and Geology²² Special Publication 42? Less than significant impact.***

As discussed above, the Project Site does not intersect any known active earthquake faults, and according to mapping from the CGS, no such fault exists in close proximity to the Project Site. The closest active fault is Elysian Thrust Fault, at approximately 3 miles from the Project Site. In addition, the Project Site is not located within, or in proximity to, an Alquist-Priolo Earthquake Fault Zone.²³ As such, the Project would not exacerbate the existing environmental conditions that could cause in whole or in part rupture of a known earthquake fault. **Therefore, the Project would have no impact and no mitigation is required.**

Threshold a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- ii. Strong seismic ground shaking? Less than Significant Impact.***

The Project is a mixed-use residential building with several subterranean parking levels that would not require deep boring into the Earth's crust, fracking or other heavy industrial

²² California Department of Conservation, California Geological Survey, <https://www.conservation.ca.gov/cgs>. Accessed September 2019.

²³ Hart, E.W., Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 1990, interim revision 2007.

or mining use that could exacerbate existing environmental conditions that could cause in whole or in part strong seismic strong ground shaking. In addition, as explained above under Threshold a), the Project Site does not intersect a known earthquake fault and, therefore, the Project would not cause in whole or in part rupture of a known earthquake fault which would cause strong seismic ground shaking. Therefore, impacts are less than significant. The following discussion about the geotechnical design of the proposed building is for informational purposes only.

As described in more detail in Section 2.a, *Regulatory Framework*, above, the Project would be developed in compliance with regulatory measures that establish development standards and construction specifications subject to the provisions of the CBC and the City's Building Code, which incorporates by reference the CBC, with City amendments for additional requirements.

The Project must conform to the current seismic design provisions of the City's Building Code, which incorporates the latest seismic design standards for structural loads and materials to accommodate maximum ground accelerations expected from known faults in the vicinity of the Project Site.

In order to assure that the standards for safety are met, the City's Building Code requires that a Final Geotechnical Report with final design recommendations prepared by a California-registered geotechnical engineer be submitted to the LADBS for review prior to issuance of a grading permit, inclusive of site-specific design recommendations for seismic safety and design requirements for foundations, retaining walls/shoring and excavation to meet applicable State and City regulatory requirements. The Final Geotechnical Report would specify exact design coefficients, as well as the type and sizing of structural building materials, site preparation requirements, and foundation design requirements; and demonstrate that construction procedures would meet the established performance standards.

Construction of the Project would be subject to the specific performance criteria recommended in the Final Geotechnical Report. Pursuant to the regulations, a qualified geotechnical engineer would be retained by the Applicant to be present on the Project Site during excavation, grading, and general Project Site preparation activities to monitor the implementation of the recommendations specified in the Final Geotechnical Report, map geologic conditions during grading, and test all grading and earthwork.

Threshold a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

iii. Seismic-related ground failure? Less than Significant Impact.

The existing environmental conditions of the Project Site related to this topic are that the Project Site is not located in an area considered to be susceptible to liquefaction,

according to the CGS.²⁴ In addition, according to the Preliminary Geotechnical Report, the historical high groundwater level is between 100 and 120 feet below ground surface and the underlying soils are generally dense silty sand, clayey sand, and sand with intermittent layers of medium stiff to hard silts and clays. The Project would not exacerbate these environmental conditions, which could cause in whole or in part seismic-related ground failure, including liquefaction, because the proposed depth of excavation of the Project is 64 feet, inclusive of 10 feet for a mat foundation, which would not penetrate the groundwater under the site. As stated above in Threshold a), the Project would not exacerbate existing environmental conditions that could cause in whole or in part seismic ground shaking or rupture of a known fault. In addition, the Project would not result in injection of substantial amounts of liquid into soils that could cause liquefaction and, as stated above, even if that were the case, the underlying soils are not considered potentially susceptible to liquefaction. **Therefore, impacts would be less than significant and no mitigation measures are required.**

Threshold a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

iv. Landslides? Less than Significant Impact.

The Project Site is located in a fully developed urban area and is relatively flat. There are no significant slope areas at the Project Site or vicinity, and the Project would not construct a slope or create a significant grade differential. Thus, the Project would not exacerbate existing environmental conditions that could cause in whole or in part landslide risks. **Therefore, impacts would be less than significant impact and no mitigation measures are required.**

Threshold b) Would the project result in substantial soil erosion or the loss of topsoil? Less than Significant Impact.

(1) Construction

The Project Site is currently occupied by buildings and paved areas, and therefore does not include top soil that is subject to erosion. Construction activities would involve earthwork that could expose deeper site soils to the effects of wind and water erosion during excavation. The area of disturbance would be less than one acre and therefore would not be required to adhere to the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. However, the City requires that construction best management practices (BMPs) be implemented on site as part of the grading permit. The City's BMP Handbook states that minimum BMPs must be implemented on site, and that a Wet Weather Erosion Control Plan (WWECP) must be implemented on site, if grading

²⁴ City of Los Angeles, Safety Element of the General Plan, Exhibit B, <https://planning.lacity.org/cwd/gnlpn/saftyelt.pdf>. Accessed may 30, 2015.

activities would occur during the rainy season (Oct 1 – April 14)²⁵. Adherence to these grading permit requirements would ensure that the Project's potential impacts related to erosion from deeper soils during construction would be less than significant.

(2) Operation

Once constructed, impervious surfaces would predominantly cover the Project Site. The Plaza area would include landscaping within the treated hardscape areas, e.g. accent stone paving. Such plantings would be provided planters that would contain soil and absorb rainwater. Open space areas located on the Podium terraces, mid-tower cut-out areas and rooftop would include hard surfaces and landscaping provided in enclosed planters that would contain soil and absorb rainwater, conveying the rainwater to the Project's drainage system. Required drainage control features would be effective in minimizing any potential for substantial erosion at the Project Site. For further discussion, refer to Section IV.H, *Hydrology and Water Quality*, regarding the proposed on-site, post construction drainage system and requirements that would manage stormwater runoff to protect water quality and quantity. As indicated therein, the Project would comply with Low Impact Development (LID)-required Best Management Practices (BMPs) to manage stormwater runoff including installation of stormwater management systems. Proposed systems that would capture and potentially reuse surface runoff include either a drywell system (MWP) or a capture and reuse system potentially combined with a bio-filtration system. Both systems would reduce the volume of water required for capture and reuse under the LID; and would comply with the procedures set forth in the City of Los Angeles' LID Handbook. **Therefore, erosion impacts would not occur and no mitigation measures are required.**

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

(1) Construction and Operation

According to the Preliminary Geotechnical Report, the Project Site is not located on a geologic unit that is unstable. The Project does not propose mining operations or other heavy industrial uses that could cause the underlying soil or geologic unit to become unstable. As mentioned above in Thresholds a) iii and a) .iv, the Project would not directly or indirectly cause potential substantial adverse impacts involving seismically induced ground failure, including liquefaction, or landslides. In addition, as explained above under Threshold a) i, the Project would not cause in whole or in part rupture of known earthquake fault or strong seismic ground shaking. Therefore, the Project would not cause in whole or in part any lateral spreading or subsidence.

²⁵ Los Angeles County Department of Public Works, Construction Site Best Management Practice (BMPs) Manual, <http://dpw.lacounty.gov/cons/specs/BMPManual.pdf>. Accessed May 2018.

While operation of the Project would not cause a geologic unit to become unstable, Project excavation would cause disturbance of existing soils that could contribute to potential localized raveling or caving of excavated areas (i.e., the excavated side walls losing stability). However, all required excavations would be sloped and properly shored in accordance with the applicable provisions of the CBC incorporated into the City's Building Code to minimize the potential for site stability hazards during temporary excavation activities. The Preliminary Geotechnical Report provides criteria regarding lateral earth pressures.²⁶ The Preliminary Geotechnical Report recommends a shoring system of soldier piles with internal bracing and/or tied-back anchors and other suitable excavation engineering techniques.

In addition, based on the result of the explorations, it is not anticipated that any water would be encountered during excavation of the proposed subterranean levels. The lowest subterranean level, inclusive of foundations, would be 64 feet below the existing ground surface. Thus, the proposed structure would not be adversely impacted by hydrostatic pressure due to the static groundwater table which is estimated at 120 feet bgs. As discussed in the Preliminary Geotechnical Report, should any seepage be encountered during excavation, water seepage could be handled on an as-encountered basis, utilizing a series of localized pumps and/or gravel trenches around the perimeter of the excavation as overseen by the licensed geotechnical engineer. A Final Geotechnical Report would be prepared and approved according to the regulatory requirements. The Final Geotechnical Report would specify the preferred construction techniques to be implemented, addressing among other topics, site-specific design recommendations for seismic safety and design requirements for foundations, retaining walls/shoring and excavation that would meet applicable State and City code and regulatory performance measures. Therefore, the Project would have a less than significant impact and no mitigation measures are required.

Threshold d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994)²⁷, creating substantial direct or indirect risks to life or property? Less than Significant Impact.

As discussed above, the Preliminary Geotechnical Report found that the subsurface soils do not exhibit expansive characteristics. In addition, the Project would not inject substantial amounts of water into the underlying soils, which could cause them to expand and shrink. Therefore, the Project would not directly or indirectly cause potential substantial adverse impacts involving substantial risks to life or property due to the

²⁶ Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018; Section 6.2. Included in Appendix F of this Draft EIR.

²⁷ Note that the current California Building Code is no longer based on the Uniform Building Code but rather the International Building Code. The current version of the California Building Code is the 2016 version that became effective January 1, 2017.

presence of expansive soils. **Therefore, impacts involving expansive soils would not occur and no mitigation is required.**

Threshold e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater? No Impact.

The Project would tie into existing wastewater sewer infrastructure and does not include the construction of any septic tanks or alternative waste water disposal systems. **As a result, there would be no impact. No mitigation is required.**

Threshold f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Less than Significant Impact with the implementation of Mitigation Measures.

As a result of this study, the surficial sediments of the Project Site identified as younger Quaternary alluvium are assigned a low paleontological sensitivity, as they are too young to preserve fossils. However, as previously stated in Existing Conditions, the Late Holocene to Pleistocene older alluvium, present at an undetermined depth within the Project Site, has high paleontological sensitivity. Based upon the depth to the older alluvium to the north and northeast of the Project Site (as little as 10 feet below ground surface)²⁸ and the depth at which fossils have been found within 0.18-3.13 miles of the Project Site (as little as 20 feet below ground surface),²⁹ it is estimated that the transition from low to high sensitivity sediments occurs at approximately 15 feet below ground surface. The depth of 15 feet is derived from the records search of the NHMLAC³⁰ and well and boring log correlations.³¹ Substantial excavation within the Project Site during construction for subterranean parking, deep excavation for excavation shoring, and excavation for ancillary uses or infrastructure improvements are planned at depths up to 64 feet below ground surface, which would intercept older alluvium determined to have a high sensitivity for fossils, pursuant to the guidelines of the SVP.³² As a result, Project construction would have the potential to directly or indirectly destroy a unique paleontological resource not identified in the analysis conducted for the Project. In light

²⁸ Yerkes, R. F., T. H. McCulloh, J. E. Schollhamer, and J. G. Vedder. 1965. Geology of the Los Angeles Basin – an introduction. Geological Survey Professional Paper 420-A

²⁹ McLeod, S. 2017. Re: Paleontological resources for the proposed 1045 South Olive Street Project, Project, in the City of Los Angeles, Los Angeles County, project area. Letter response to Sara Dietler. November 30, 2017. Included in Appendix F-3 of this Draft EIR.

³⁰ McLeod, S. 2017. Re: Paleontological resources for the proposed 1045 South Olive Street Project, Project, in the City of Los Angeles, Los Angeles County, project area. Letter response to Sara Dietler. November 30, 2017. Included in Appendix F-3 of this Draft EIR.

³¹ Yerkes, R. F., T. H. McCulloh, J. E. Schollhamer, and J. G. Vedder. 1965. Geology of the Los Angeles Basin – an introduction. Geological Survey Professional Paper 420-A

³² Society of Vertebrate Paleontology (SVP). 2010. Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources, http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx. Accessed January 3, 2017.

of the nature of the Project's site preparation and excavation work during construction, Project Impacts on paleontological resources are potentially significant.

Accordingly, four mitigation measures are proposed to address the Project's potential impacts on paleontological resources. GEOL-MM-1 requires the retention of a Qualified Paleontologist to oversee construction monitoring and other mitigation activities. GEOL-MM-2 requires construction worker paleontological resources sensitivity training at the Project kick-off meeting prior to the start of ground disturbing activities. Mitigation measure GEOL-MM-3 requires paleontological resources monitoring by a qualified paleontological monitor (meeting the standards of the SVP) under the direction of the qualified paleontologist for all ground-disturbing activities that exceed 15 feet in depth in previously undisturbed older Alluvial sediments with a high sensitivity for encountering paleontological resources. CULT-MM-4 requires that any significant fossils collected during project-related excavations be prepared to the point of identification and curated into an accredited repository with retrievable storage.

With implementation of these mitigation measures, the Project's potential impacts on previously unknown paleontological resources would be reduced to a less than significant level.

e) Cumulative Impacts

(1) Impacts Regarding Geologic and Soil Hazards

As analyzed above, the Project would not cause in whole or in part an exacerbation of the existing environmental conditions, and would not directly or indirectly cause potential substantial adverse impacts related to geology, soils and seismicity. The Project consists of redevelopment of an urban location similar to the related projects which primarily reflect infill development within Downtown Los Angeles and surrounding communities.

Development and redevelopment projects do not exacerbate fault rupture hazards which are dependent more on the location of projects in relation to active faults. The Project is not located within an Alquist-Priolo Earthquake Fault Zone and therefore could not combine with the related projects to have any cumulative effect.

The Project in combination with the related projects would not exacerbate any seismic hazards including groundshaking or liquefaction that are present in the region. Seismic hazards are generally dictated by various factors including, the characteristics of underlying materials, distance to the epicenter of the earthquake, and the construction methods of the improvements. The presence of liquefiable soils is site specific and the Project could not combine with the related projects to exacerbate any liquefaction hazards, where present. The Project and the related projects would all be required to adhere to similar seismic building code standards to minimize any seismic hazards to less than significant levels. The related projects, which consist primarily of various infill development and redevelopment, would not combine to become cumulatively considerable.

Erosion and loss of topsoil would be addressed at the Project Site and at each related project site through adherence to NPDES construction permit and drainage control requirements. Other cumulative projects would be required to adhere to similar regulatory requirements that are effective in ensuring that stormwater runoff is managed such that erosion or loss of topsoil is minimized. With adherence to these construction and drainage control requirements, the Project would not combine with other related projects to cause cumulatively considerable impacts related to erosion and loss of topsoil.

None of the related projects share a common property line with the Project and all are separated from the Project Site by roadways and distance such that there would be no way for these projects to combine to cause any unstable geologic conditions. The Project would not have an adverse effect on the geologic stability of these related projects due to the topography of the region, the proposed land uses of the cumulative projects, and the distance among the various properties. There would be no potential for combined incremental geology and soils impacts between these projects.

In addition, the Project and related projects are located within an urban setting and constitutes infill development that would connect to the existing sewer system, and would not contribute to adverse effects to soils associated with the provision of septic tanks or similar alternative wastewater disposal systems.

Therefore, considering the proposed land uses of the Project and related projects, as well as the existing regulatory requirements that would apply to all development, the Project's contribution to cumulative impacts would not be cumulatively considerable. No mitigation measures are required.

(2) Impacts Regarding Paleontological Resources

New development within the Project's cumulative study area include construction and excavation on parcels that have been disturbed or are already developed as well as on open space parcels, and would have the potential to disturb geological units that are sensitive for paleontological resources. Generally, however, projects with the potential for substantial excavation would be subject to environmental review under CEQA. If the potential for significant impacts on paleontological resources were identified given the site characteristics and development program of the cumulative projects, mitigation measures would be required. As with the Project, these measures would include a monitoring program and treatment/curation of discovered fossils. Implementation of these measures would reduce the potential for adverse effects on fossil resources individually and cumulatively, and would preserve and maximize the potential of these resources to contribute to the body of scientific knowledge.

The Project is required to implement mitigation measures GEOL-MM-1 through GEOL-MM-4 ensuring proper identification, treatment and preservation of any resources, and reducing significant Project impacts on paleontological resources to less than significant levels. **Therefore, the Project's contribution to cumulative impacts would not be cumulatively considerable, and the Project, considered together with the**

related projects, would not result in cumulative significant impacts on paleontological resources. Cumulative impacts on paleontological resources would be less than significant.

f) Mitigation Measures

A Final Geotechnical Report would be prepared and approved according to the regulatory requirements, impacts would be less than significant regarding geologic and soil hazards, and no further mitigation measures would be required.

However, the following mitigation measures are proposed to reduce potentially significant impacts to paleontological resources:

GEOL-MM-1: A Qualified Paleontologist meeting the Society of Vertebrate Paleontology (SVP) Standards (SVP, 2010) (Qualified Paleontologist) shall be retained prior to the approval of demolition or grading permits. The Qualified Paleontologist shall provide technical and compliance oversight of all work as it relates to paleontological resources, shall attend the Project kick-off meeting and Project progress meetings on a regular basis, and shall report to the Project Site in the event potential paleontological resources are encountered.

GEOL-MM-2: The Qualified Paleontologist shall conduct construction worker paleontological resources sensitivity training at the Project kick-off meeting prior to the start of ground disturbing activities (including vegetation removal, pavement removal, etc.). In the event construction crews are phased, additional training shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project Site and the procedures to be followed if they are found. Documentation shall be retained by the Qualified Paleontologist demonstrating that the appropriate construction personnel attended the training.

GEOL-MM-3: Paleontological resources monitoring shall be performed by a qualified paleontological monitor (meeting the standards of the SVP, 2010) under the direction of the Qualified Paleontologist. Paleontological resources monitoring shall be conducted for all ground disturbing activities that exceed 15 feet in depth in previously undisturbed older Alluvial sediments which have high sensitivity for encountering paleontological resources. However, depending on the conditions encountered, full-time monitoring within these sediments can be reduced to part-time inspections or ceased entirely if determined appropriate by the Qualified Paleontologist. The surficial Alluvium has low paleontological sensitivity and so work in the upper 15 feet of the Project Site does not require monitoring. The Qualified Paleontologist shall spot check the excavation on an intermittent basis and recommend whether the depth of required monitoring should be revised based on his/her observations. Monitors shall have the authority to temporarily halt or divert work away from exposed fossils or potential fossils. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries.

GEOL-MM-4: Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. The Qualified Paleontologist shall prepare a final monitoring and mitigation report for submittal to the City in order to document the results of the monitoring effort and any discoveries. If there are significant discoveries, fossil locality information and final disposition will be included with the final report which will be submitted to the appropriate repository and the City.

g) Level of Significance After Mitigation

(1) Impacts Regarding Geologic and Soils Hazards

Not applicable as impacts are less than significant without mitigation.

(2) Impacts Regarding Paleontological Resources

With implementation of mitigation measures, Project-level and cumulative impacts to paleontological resources would be less than significant.

IV.F Greenhouse Gas Emissions

1. Introduction

This section compares the Project's characteristics with applicable regulations, plans, and policies set forth by the State of California, the Southern California Association of Governments (SCAG) and the City to reduce GHG emissions to determine whether the Project is consistent with and/or would conflict with the provisions of these plans. To assist in analyzing the Project's consistency to applicable regulations, plans and policies, this section also estimates the Project's greenhouse gas (GHG) emissions generated by Project construction and operations, taking into account mandatory and voluntary energy and resource conservation measures that have been incorporated into the Project to reduce GHG emissions. Details of the GHG analysis are provided in the *Greenhouse Gas Technical Appendix*, which is attached as Appendix G-1 of this Draft EIR, and incorporated by reference herein. Although not specifically required under the California Environmental Quality Act (CEQA), the Project would voluntarily meet the requirements of the *Jobs and Economic Improvement Through Environmental Leadership Act* (the Act), which would allow the Project to qualify for streamlined environmental review under CEQA. The Act requires that the Project not result in any net additional GHG emissions as determined by the Executive Director of the California Air Resources Board (CARB). Additional information regarding the Environmental Leadership Development Project certification is discussed in Section IV.F.4, below, and other related documentation is provided in Appendix G-2 of this Draft EIR.

2. Environmental Setting

a) GHG Fundamentals

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however, current data increasingly indicate that the current global conditions differ from past climate changes in rate and magnitude. Global climate change attributable to anthropogenic (human) GHG emissions is currently one of the most important and widely debated scientific, economic and political issues in the United States and the world. The extent to which increased concentrations of GHGs have caused or will cause climate change and the appropriate actions to limit and/or respond to climate change are the subject of significant and rapidly evolving regulatory efforts at the federal and state levels of government.

GHGs are those compounds in the Earth's atmosphere which play a critical role in determining temperature near the Earth's surface. More specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth's atmosphere, but retain some

of the low frequency infrared energy which is radiated back from the Earth towards space, resulting in a warming of the atmosphere. Not all GHGs possess the same ability to induce climate change; as a result, GHG contributions are commonly quantified in the units of equivalent mass of carbon dioxide (CO₂e). Mass emissions are calculated by converting pollutant specific emissions to CO₂e emissions by applying the proper global warming potential (GWP) value.¹ These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The updated GWPs in the IPCC AR4 have begun to be used in recent GHG emissions inventories. By applying the GWP ratios, Project-related CO₂e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO₂ over a 100-year period is used as a baseline. The CO₂e values are calculated for construction years as well as existing and Project build-out conditions in order to generate a net change in GHG emissions for construction and operation. Compounds that are regulated as GHGs are discussed below.^{2, 3}

Carbon Dioxide (CO₂): CO₂ is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO₂ is the reference gas (GWP of 1) for determining the GWPs of other GHGs.⁴

Methane (CH₄): CH₄ is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The GWP of CH₄ is 21 in the IPCC SAR and 25 in the IPCC AR4.⁵

Nitrous Oxide (N₂O): N₂O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary

¹ GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report (SAR) in 1996. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's SAR. The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The California Air Resources Board (CARB) has begun reporting GHG emission inventories for California using the GWP values from the IPCC AR4.

² Intergovernmental Panel on Climate Change, Second Assessment Report, Working Group I: The Science of Climate Change, 1995, <https://www.ipcc.ch/pdf/climate-changes-1995/ipcc-2nd-assessment/2nd-assessment-en.pdf>. Accessed June 2018.

³ Intergovernmental Panel on Climate Change, Fourth Assessment Report, Working Group I Report: The Physical Science Basis, Table 2.14, 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed June 2018.

⁴ Intergovernmental Panel on Climate Change, Fourth Assessment Report, Working Group I Report: The Physical Science Basis, Table 2.14, 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed June 2018.

⁵ Intergovernmental Panel on Climate Change, Fourth Assessment Report, Working Group I Report: The Physical Science Basis, Table 2.14, 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed June 2018.

combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N_2O is 310 in the IPCC SAR and 298 in the IPCC AR4.⁶

Hydrofluorocarbons (HFCs): HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems. The GWP of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23 in the IPCC SAR and 124 for HFC-152a to 14,800 for HFC-23 in the IPCC AR4.⁷

Perfluorocarbons (PFCs): PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. The GWPs of PFCs range from 6,500 to 9,200 in the IPCC SAR and 7,390 to 17,700 in the IPCC AR4.⁸

Sulfur Hexafluoride (SF_6): SF_6 is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF_6 has a GWP of 23,900 in the IPCC SAR and 22,800 in the IPCC AR4.⁹

Nitrogen Trifluoride (NF_3): NF_3 is a nitrogen-fluorine compound and a colorless, odorless, nonflammable gas. NF_3 is used in a relatively small number of industrial processes. It is primarily produced in the manufacture of semiconductors and LCD (Liquid Crystal Display) panels, and certain types of solar panels and chemical lasers. NF_3 has a GWP of 17,200 in the IPCC AR4.

b) Regulatory Framework

(1) Federal

(a) Federal Clean Air Act

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane

⁶ Intergovernmental Panel on Climate Change, Fourth Assessment Report, The Physical Science Basis, Table 2.14, 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed June 2018.

⁷ Intergovernmental Panel on Climate Change, Fourth Assessment Report, The Physical Science Basis, Table 2.14, 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed June 2018.

⁸ Intergovernmental Panel on Climate Change, Fourth Assessment Report, The Physical Science Basis, Table 2.14, 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed June 2018.

⁹ Intergovernmental Panel on Climate Change, Fourth Assessment Report, The Physical Science Basis, Table 2.14, 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. Accessed June 2018.

and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions. USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

On May 19, 2009, the President of the United States announced a national policy for fuel efficiency and emissions standards in the auto industry.¹⁰ The adopted federal standard applies to passenger cars and light-duty trucks for model years 2012 through 2016.¹¹ The standard surpasses the prior Corporate Average Fuel Economy standards and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO₂ per mile by model year 2016, based on USEPA calculation methods. These standards were formally adopted on April 1, 2010.¹² In August 2012, standards were adopted for model year 2017 through 2025 passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO₂ per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.¹³

On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆). The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the Clean Air Act.¹⁴ USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering

¹⁰ On March 15, 2017, the current administration announced its intention to direct the USEPA to reconsider the model year 2017-2025 cars and light truck emissions standards, but did not rescind California's waiver. Therefore, the standards remain in effect. See: The White House, Remarks by President Trump at American Center for Mobility | Detroit, MI, March 15, 2017, <https://www.whitehouse.gov/the-press-office/2017/03/15/remarks-president-trump-american-center-mobility-detroit-mi>. Accessed June 2018.

¹¹ United States Environmental Protection Agency, Final Rule for Model Year 2012 - 2016 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 2010, <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-model-year-2012-2016-light-duty-vehicle>. Accessed August 2018.

¹² United States Environmental Protection Agency, Final Rule for Model Year 2012 - 2016 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 2010, <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-model-year-2012-2016-light-duty-vehicle>. Accessed August 2018.

¹³ United States Environmental Protection Agency, "EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks," 2012, <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockkey=P100EZ7C.PDF>. Accessed June 2018.

¹⁴ United States Environmental Protection Agency, Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act, <https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean>. Accessed January 2018.

public health and welfare.¹⁵ These findings do not themselves impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.¹⁶

(2) State

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the State.

(a) *California Air Resources Board*

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts. The SIP is required for the State to take over implementation of the federal Clean Air Act. CARB also has primary responsibility for adopting regulations to meet the State's goal of reducing GHG emissions to 1990 levels by 2020.

(b) *Executive Order S-3-05 and Executive Order B-30-15*

In June, 2005, through Executive Order S-3-05,¹⁷ the following GHG emission reduction targets were established:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

¹⁵ United States Environmental Protection Agency, Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act, 2009, <https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a>. Accessed June 2018.

¹⁶ United States Environmental Protection Agency, Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act, 2009, <https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a>. Accessed June 2018.

¹⁷ California Climate Change, Executive Orders, 2018, http://www.climatechange.ca.gov/state/executive_orders.html. Accessed July 2018.

In accordance with Executive Order S-3-05, the Secretary of CalEPA is required to coordinate the efforts of the various agencies in order to collectively and efficiently reduce GHGs. Some of the agency representatives involved in the GHG reduction plan include the Secretary of the Business, Transportation and Housing Agency, the Secretary of the Department of Food and Agriculture, the Secretary of the Resources Agency, the Chairperson of CARB, the Chairperson of the California Energy Commission (CEC), and the President of the Public Utilities Commission. Representatives from these agencies comprise the California Climate Action Team (CCAT).

The CCAT provides biennial reports to the Governor and Legislature on the state of GHG reductions in the state as well as strategies for mitigating and adapting to climate change. The first CCAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in Executive Order S-3-05.¹⁸ The 2010 CCAT Report, finalized in December 2010, expands on the policy oriented 2006 assessment.¹⁹ The new information detailed in the CCAT Report includes development of revised climate and sea-level projections using new information and tools that have become available in the last two years; and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts.

In April, 2015, through Executive Order B-30-15. Therein, the following were completed:²⁰

- Established a new interim Statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.
- In 2016, the State of California reduced statewide GHG emissions to below 1990 level emissions achieving the target established in the Global Warming Solutions Act of 2006 (Assembly Bill 32). The 2017 statewide emissions inventory continues the declining trend.²¹

¹⁸ California Environmental Protection Agency, California Climate Action Team Report to the Governor and the Legislature, (2006).

¹⁹ California Environmental Protection Agency, California Climate Action Team Report to the Governor and the Legislature, (2010).

²⁰ Office of Governor Edmund G. Brown Jr., Governor Brown Establishes Most Ambitious Greenhouse Gas Reduction Target in North America, 2015, <https://www.gov.ca.gov/2015/04/29/news18938/>. Accessed June 2018.

²¹ California Air Resources Board, California Greenhouse Gas Emissions for 2000 to 2017, 2019, https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf. Accessed September 2019.

(c) *Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006*

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code (HSC), Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines regulated GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable Statewide program to limit emissions of these GHGs from all major industries, with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 Statewide levels by 2020.

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amend HSC Division 25.5, establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of state climate policies reach into disadvantaged communities.

(i) *Climate Change Scoping Plan*

AB 32 requires CARB to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (HSC section 38561 (h)). CARB developed its initial Scoping Plan, which was approved in 2008; it contained a mix of recommended strategies to achieve the 2020 emissions cap that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 Statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives.²²

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions reduction target for 2020. The 2020 emissions reduction target was originally set at 427 million metric tons (MMT) of CO₂e using the GWP values from the IPCC SAR. CARB also projected the state's 2020 GHG emissions under no-action-taken (NAT) conditions – that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 MMTCO₂e (using GWP values from the IPCC SAR). Therefore, under the original projections, the state would have had to reduce its 2020 NAT emissions by 28.4 percent in order to meet the 1990 target of 427 MMTCO₂e.

²² Office of Governor Edmund G. Brown Jr., Governor Brown Establishes Most Ambitious Greenhouse Gas Reduction Target in North America, 2015, <https://www.gov.ca.gov/2015/04/29/news18938/>. Accessed June 2018.

(ii) *First Update to the Climate Change Scoping Plan*

The First Update to the Scoping Plan was approved by CARB in May 2014 and built upon the initial Scoping Plan with new strategies and recommendations.²³ In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined the 1990 GHG emissions inventory and 2020 GHG emissions limit to be 431 MMTCO₂e. CARB also updated the State's 2020 NAT emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that had recently been adopted for motor vehicles and renewable energy. CARB's projected Statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 MMTCO₂e.

Therefore, under the first update to the Scoping Plan, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO₂e would have been 78.4 MMTCO₂e, or a reduction of GHG emissions by approximately 15.4 percent.

(iii) *2017 Climate Change Scoping Plan*

In response to the passage of SB 32 and the identification of the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan at a public meeting held in December 2017.²⁴ The 2017 Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target of 40 percent below 1990 levels, which build on the Cap-and-Trade Regulation, the Low Carbon Fuel Standard (LCFS), improved vehicle, truck and freight movement emissions standards, increasing renewable energy, and strategies to reduce methane emissions from agricultural and other wastes by using it to meet California's energy needs. CARB's projected Statewide 2030 emissions takes into account 2020 GHG reduction policies and programs.²⁵ The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors.

CARB states that the Scoping Plan Scenario "is the best choice to achieve the State's climate and clean air goals."²⁶ Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions would be achieved from electricity sector standards (i.e., utility providers to supply 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. The alternatives are designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the

²³ California Air Resources Board, First Update to the AB 32 Scoping Plan, https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed June 2018.

²⁴ California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed June 2019.

²⁵ California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017.

²⁶ California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017.

Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030.

The 2017 Scoping Plan discusses the role of local governments in meeting the State's greenhouse gas reductions goals because local governments have jurisdiction and land use authority related to: community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations.²⁷ Furthermore, local governments may have the ability to incentivize renewable energy, energy efficiency, and water efficiency measures.²⁸

For individual projects under CEQA, the 2017 Scoping Plan states that local governments can support climate action when considering discretionary approvals and entitlements. According to the 2017 Scoping Plan, lead agencies have the discretion to develop evidence-based numeric thresholds consistent with the Scoping Plan, the State's long-term goals, and climate change science.²⁹

The City has not developed per capita targets for 2030 or 2050; however, the City recognizes that GHG emissions reductions are necessary in the public and private sectors. The City has taken the initiative in combatting climate change by developing programs such as the Green New Deal and Green Building Code. Each of these programs is discussed further in subsections IV.F.3.d)(3)(a) and IV.F.3.d)(3)(b)(a)(4) below.

A summary of the GHG emissions reductions required under HSC Division 25.5 is provided in **Table IV.F-1, Estimated Statewide Greenhouse Gas Emissions Reductions Required by HSC Division 25.5.**

TABLE IV.F-1
ESTIMATED STATEWIDE GREENHOUSE GAS EMISSIONS REDUCTIONS REQUIRED BY HSC
DIVISION 25.5

Emissions Scenario	GHG Emissions (MMTCO₂e)
2008 Scoping Plan (IPCC SAR)	
2020 BAU Forecast (CARB 2008 Scoping Plan Estimate)	596
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	427
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	169 (28.4%) ^a
2011 Scoping Plan (IPCC AR4)	
2020 BAU Forecast (CARB 2011 Scoping Plan Estimate)	509.4

²⁷ California Air Resources Board, California's 2017 Climate Change Scoping Plan, p. 97, November 2017.

²⁸ California Air Resources Board, California's 2017 Climate Change Scoping Plan, p. 97, November 2017.

²⁹ California Air Resources Board, California's 2017 Climate Change Scoping Plan, p. 100, November 2017.

Emissions Scenario	GHG Emissions (MMTCO ₂ e)
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	431
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	78.4 (15.4%) ^b
2017 Scoping Plan Update	
2030 BAU Forecast ("Reference Scenario" which includes 2020 GHG reduction policies and programs)	389
2030 Emissions Target Set by HSC Division 25.5 (i.e., 40% below 1990 Level)	260
Reduction below Business-As-Usual Necessary to Achieve 40% below 1990 Level by 2030	129 (33.2%) ^c

MMTCO₂e = million metric tons of carbon dioxide equivalents

^a 596 – 427 = 169 / 596 = 28.4%

^b 509.4 – 431 = 78.4 / 509.4 = 15.4%

^c 389 – 260 = 129 / 389 = 33.2%

SOURCE: California Air Resources Board, Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011; California Air Resources Board, 2020 Business-as-Usual (BAU) Emissions Projection, 2014 Edition, 2017, <http://www.arb.ca.gov/cc/inventory/data/bau.htm>. Accessed October 2017; California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017. Available at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 2018.

Under the Scoping Plan Scenario, continuation of the Cap-and-Trade regulation (or carbon tax) is expected to cover approximately 34 to 79 MMTCO₂ of the 2030 reduction obligation.³⁰ The State's short-lived climate pollutants strategy, which is for GHGs that remain in the atmosphere for shorter periods of time compared to longer-lived GHGs like CO₂, is expected to cover approximately 17 to 35 MMTCO₂e. The Renewables Portfolio Standard with 50 percent renewable electricity by 2030 is expected to cover approximately 3 MMTCO₂. The mobile source strategy and sustainable freight action plan includes maintaining the existing vehicle GHG emissions standards, increasing the number of zero emission vehicles and improving the freight system efficiency, and is expected to cover approximately 11 to 13 MMTCO₂. Under the Scoping Plan Scenario, CARB expects that the reduction in GHGs from doubling of the energy efficiency savings in natural gas and electricity end uses in the CEC 2015 Integrated Energy Policy Report by 2030 would cover approximately 7 to 9 MMTCO₂ of the 2030 reduction obligation. The other strategies would be expected to cover the remaining 2030 reduction obligations.

(d) *California Assembly Bill No. 1493 (AB 1493, Pavley)*
(Chapter 200, Statutes of 2002)

In response to the transportation sector accounting for more than half of California's CO₂ emissions, AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required

³⁰ California Air Resources Board, California's 2017 Climate Change Scoping Plan, Appendix G, November 2017, https://www.arb.ca.gov/cc/scopingplan/2030sp_appg_alt-ab197aq-health_final.pdf. Accessed January 2018.

CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers.³¹ As discussed previously, the USEPA and United States Department of Transportation (USDOT) have adopted federal standards for model year 2012 through 2016 light-duty vehicles. In light of the USEPA and USDOT standards, California - and states adopting California emissions standards - have agreed to defer to the proposed national standard through model year 2016. The 2016 endpoint of the federal and state standards is similar, although the federal standard ramps up slightly more slowly than required under the state standard. The state standards (called the Pavley standards) require additional reductions in CO₂ emissions beyond model year 2016 (referred to as Pavley Phase II standards).³² As noted above, the USEPA and USDOT have adopted GHG emission standards for model year 2017 through 2025 vehicles.³³ These standards are slightly different from the Pavley Phase II standards, but the State of California has agreed not to contest these standards, in part due to the fact that while the national standard would achieve slightly lower reductions in California, it would achieve greater reductions nationally and is stringent enough to meet state GHG emission reduction goals.³⁴ On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017-2025 national standards to meet state law. Automobile manufacturers generally comply with these standards through a combination of improved energy efficiency in vehicle equipment (e.g., air conditioning systems) and engines as well as sleeker aerodynamics, use of strong but lightweight materials, and lower-rolling resistance tires.³⁵

(e) *Executive Order S-01-07*

Executive Order S-01-07 was enacted on January 18, 2007.³⁶ The order mandates the following: (1) that a Statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) that a LCFS for transportation fuels be established in California. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address

³¹ California Air Resources Board, Regulations to Control Greenhouse Gas Emissions from Motor Vehicles, Final Statement of Reasons, 2005, <https://www.arb.ca.gov/regact/grnhsgas/fsor.pdf>. Accessed June 2018.

³² On March 24, 2017, CARB voted unanimously to uphold the State's model year 2017-2025 cars and light truck emissions standards. See: California Air Resources Board, CARB finds vehicle standards are achievable and cost-effective, March 24, 2017, <https://www.arb.ca.gov/newsrel/newsrelease.php?id=908>. Accessed June 2018.

³³ United States Environmental Protection Agency, 2012.

³⁴ California Air Resources Board, "Advanced Clean Cars Summary," http://www.arb.ca.gov/msprog/clean_cars/acc%20summary-final.pdf. Accessed June 2018.

³⁵ California Air Resources Board, California's Advanced Clean Cars Midterm Review, pp. ES-17, C-9, https://www.arb.ca.gov/msprog/acc/mtr/acc_mtr_finalreport_full.pdf?_ga=2.198539752.699746706.1561765893-161648356.1510110319. Accessed June 2019.

³⁶ Office of the Governor Arnold Schwarzenegger, Executive Order S-01-07, <https://www.arb.ca.gov/fuels/lcfs/eos0107.pdf>, 2007. Accessed January 2018.

procedural deficiencies in the way the original regulation was adopted.³⁷ In the proposed 2017 Climate Change Scoping Plan Update, CARB's preferred recommendation includes increasing the stringency of the LCFS by reducing the carbon intensity of transportation fuels by 18 percent by 2030, up from the current target of 10 percent by 2020.³⁸ In September 2018, the standards were amended by CARB to require a 20 percent reduction in carbon intensity by 2030, aligning with California's 2030 targets set by SB 32.³⁹

(f) *Senate Bill 97 (SB 97, Dutton) (Chapter 185, Statutes of 2007)*

SB 97 (Chapter 185, Statutes of 2007), enacted in 2007, amended CEQA to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research (OPR) to develop revisions to the State CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Resources Agency to certify and adopt these revised State CEQA Guidelines by January 2010. The revisions were completed in March 2010 and codified into the California Code of Regulations (CCR) and became effective within 120 days pursuant to CEQA. The amendments provide regulatory guidance for the analysis and mitigation of the potential effects of GHG emissions. The CEQA Guidelines require:

- Inclusion of GHG analyses in CEQA documents;
- Determination of significance of GHG emissions; and
- If significant GHG emissions would occur, adoption of mitigation to address significant emissions.

(g) *Senate Bill 375 (SB 375, Steinberg) (Chapter 728, Statutes of 2008)*

SB 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. SB 375 finds that the "transportation sector is the single largest contributor of greenhouse gases of any sector."⁴⁰ Under SB 375, CARB is required, in consultation with the Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-

³⁷ California Air Resources Board, Low Carbon Fuel Standard, 2018, <https://www.arb.ca.gov/fuels/lcfs/lcfs.htm>. Accessed January 2018.

³⁸ California Air Resources Board, AB 32 Scoping Plan, 2017, <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed June 2018.

³⁹ California Air Resources Board, CARB amends Low Carbon Fuel Standard for wider impact, 2018, <https://ww2.arb.ca.gov/index.php/news/carb-amends-low-carbon-fuel-standard-wider-impact>. Accessed September 2019.

⁴⁰ State of California, Senate Bill No. 375, September 30, 2008, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375, Accessed September 2018.

duty truck sector for 2020 and 2035. In February 2011, CARB adopted GHG emissions reduction targets for the SCAG, which is the Metropolitan Planning Organization for the region in which the City is located.⁴¹ In March 2018, the CARB updated the SB 375 targets for the SCAG region to require an 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions.⁴² As these reduction targets were updated after the SCAG 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy (2016-2040 RTP/SCS) was adopted, it is expected that the next iteration of the RTP/SCS will be updated to meet them.

Under SB 375, the target must be incorporated within that region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plans) are not required to be consistent with either the RTP or SCS.

(h) Title 24, Building Standards Code and CALGreen Code

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.”⁴³ The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not

⁴¹ California Air Resources Board, Sustainable Communities, March 28, 2017, <https://www.arb.ca.gov/cc/sb375/sb375.htm>. Accessed June 2018.

⁴² California Air Resources Board, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, <https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf>. Accessed August 2018.

⁴³ California Building Standards Commission, 2010 California Green Building Standards Code, (2010).

established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.⁴⁴

(i) *Renewables Portfolio Standard and SB 100*

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Executive Order S-14-08 was signed, which expands the State's Renewables Portfolio Standard (RPS) to 33 percent renewable power by 2020. Pursuant to Executive Order S-21-09, CARB was also preparing regulations to supplement the RPS with a Renewable Energy Standard that would result in a total renewable energy requirement for utilities of 33 percent by 2020. On April 12, 2011, SB X1-2 was signed to increase California's RPS to 33 percent by 2020. SB 350 (Chapter 547, Statutes of 2015) further increased the RPS to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. SB 350 was signed into law on October 7, 2015. The 2017 Climate Change Scoping Plan incorporated the SB 350 standards and estimated the GHG reductions would account for approximately 21 percent of the Scoping Plan reductions.⁴⁵

On September 10, 2018, former Governor Jerry Brown signed SB 100, which further increased California's Renewables Portfolio Standard and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.⁴⁶

(j) *Cap-and-Trade Program*

The Climate Change Scoping Plan identifies a Cap-and-Trade Program as one of the strategies California would employ to reduce GHG emissions. CARB asserts that this program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020, and ultimately achieving an 80 percent reduction from 1990 levels by 2050. Under Cap-and-Trade, an overall limit on GHG emissions from capped sectors is established and facilities subject to the cap will be able to trade permits to emit GHGs.

⁴⁴ California Building Standards Commission, 2010 California Green Building Standards Code, (2010).

⁴⁵ California Air Resources Board, California's 2017 Climate Change Scoping Plan, Table 3, p. 31, November 2017. Calculated as: $(108 - 53) / 260 = 21$ percent.

⁴⁶ California Legislative Information, SB-100 California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases, https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201720180 SB100. Accessed June 2019.

CARB designed and adopted a California Cap-and-Trade Program⁴⁷ pursuant to its authority under AB 32. The development of this Program included a multi-year stakeholder process and consideration of potential impacts on disproportionately impacted communities. The Cap-and-Trade Program is designed to reduce GHG emissions from public and private major sources (deemed “covered entities”) by setting a firm cap on Statewide GHG emissions and employing market mechanisms to achieve AB 32’s emission-reduction mandate of returning to 1990 levels of emissions by 2020. The Statewide cap for GHG emissions from the capped sectors⁴⁸ (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the Program’s duration.

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities that emit more than 25,000 MTCO₂e per year must comply with the Cap-and-Trade Program.⁴⁹ Triggering of the 25,000 MTCO₂e per year “inclusion threshold” is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or “MRR”).⁵⁰

Each covered entity with a compliance obligation is required to surrender “compliance instruments”⁵¹ for each MTCO₂e of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), buy allowances at auction, purchase allowances from others, or purchase offset credits. A “compliance period” is the time frame during which the compliance obligation is calculated. The years 2013 and 2014 are the first compliance period, the years 2015–2017 are the second compliance period, and the third compliance period is from 2018–2020. At the end of each compliance period, each facility will be required to surrender compliance instruments to CARB equivalent to their total GHG emissions throughout the compliance period. There also are requirements to surrender compliance instruments covering 30 percent of the prior year’s compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30 percent of its 2013 GHG emissions.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 Statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an

⁴⁷ California Code of Regulations 17, Section 95800 to 96023.

⁴⁸ California Code of Regulations 17, Section 95811, 95812.

⁴⁹ California Code of Regulations 17, Section 95812.

⁵⁰ California Code of Regulations 17, Section 95100-95158.

⁵¹ Compliance instruments are permits to emit, the majority of which will be “allowances,” but entities also are allowed to use CARB-approved offset credits to meet up to 8% of their compliance obligations.

accumulative basis. As summarized by CARB in its First Update to the Climate Change Scoping Plan:

*The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. **But as the cap declines, aggregate emissions must be reduced.***⁵²

In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program. However, as climate change is a global phenomenon and the effects of GHG emissions are considered cumulative in nature, a focus on aggregate GHG emissions reductions is warranted.

Further, the reductions in GHG emissions that will be achieved by the Cap-and-Trade Program inherently are variable and, therefore, impossible to quantify with precision:

*The Cap-and-Trade Regulation is different from most of the other measures in the Scoping Plan. The [R]egulation sets a hard cap, instead of an emission limit, so the emission reductions from the program vary as our estimates of “business as usual” emissions in the future are updated. In addition, the Cap-and-Trade Program works in concert with many of the direct regulatory measures—providing an additional economic incentive to reduce emissions. Actions taken to comply with direct regulations reduce an entity’s compliance obligation under the Cap-and-Trade Regulation. So, for example, increased deployment of renewable electricity sources reduces a utility’s compliance obligation under the Cap-and-Trade Regulation.*⁵³

If California’s direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California’s direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. In other words, the Cap-and-Trade Program functions sort of like an insurance policy for meeting California 2020’s GHG emissions reduction mandate:

The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the “capped sectors.” Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency

⁵² California Air Resources Board, First Update to the Climate Change Scoping Plan: Building on the Framework, at 86 (May 2014) (emphasis added).

⁵³ California Air Resources Board, First Update to the Climate Change Scoping Plan: Building on the Framework, at 86 (May 2014) (emphasis added).

standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap.⁵⁴

[T]he Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85 percent of California's GHG emissions.⁵⁵

In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by CARB under AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported.⁵⁶ Accordingly, for projects that are subject to the CEQA, GHG emissions from electricity consumption are covered by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.⁵⁷ While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015:

*Suppliers of natural gas, suppliers of RBOB [Reformulated Gasoline Blendstock for Oxygenate Blending] and distillate fuel oils, suppliers of liquefied petroleum gas, and suppliers of liquefied natural gas specified in sections 95811(c), (d), (e), (f), and (g) that meet or exceed the annual threshold in section 95812(d) **will have a compliance obligation beginning with the second compliance period.**⁵⁸*

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions.

⁵⁴ California Air Resources Board, First Update to the Climate Change Scoping Plan: Building on the Framework, at 88 (May 2014).

⁵⁵ Id. at 86-87.

⁵⁶ California Code of Regulations 17, Section 95811(b).

⁵⁷ California Code of Regulations 17, Section 95811, 95812(d).

⁵⁸ Id. at Section 95811(b)(emphasis added).

The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are “supplied” (i.e., delivered into commerce). However, transportation fuels that are “supplied” in California, but can be demonstrated to have a final destination outside California, do not generate a compliance obligation. The underlying concept here is that CARB is seeking to capture tailpipe GHG emissions from the combustion of transportation fuels supplied to California end-users. Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with vehicle combustion of transportation fuels are covered by the Cap-and-Trade Program.

Demonstrating the efficacy of the Cap-and-Trade Program, based on the year 2016 GHG emissions inventory, California’s GHG emissions were approximately 429 MMTCO_{2e}, approximately 12 MMTCO_{2e} below 2015 levels and just below the 2020 target of 431 MMTCO_{2e}.⁵⁹ The largest reductions were the result of increased renewable electricity in the electricity sector, which is a covered sector in the Cap-and-Trade Program.

(k) *Jobs and Economic Improvement Through Environmental Leadership Act*

Although not specifically required under CEQA, the Project would voluntarily meet the requirements of the *Jobs and Economic Improvement Through Environmental Leadership Act*, which would allow the Project to qualify for streamlined environmental review under CEQA and requires, among other things, the Project, upon completion, to qualify for the United States Green Building Council (USGBC) Leadership in Energy and Environmental (LEED) Gold Certification, be located on an infill site, and not result in any net additional GHG emissions as determined by the Executive Director of CARB. As discussed previously, the Project would qualify for LEED Gold Certification and be located on an infill site. With respect to GHG emissions, the Project would not result in any net additional GHGs including GHG emissions from employee transportation via Project Design Features that would reduce GHG emissions and the purchase of GHG offsets as needed. The Governor certified the Project as eligible under the *Jobs and Economic Improvement Through Environmental Leadership Act* on April 27, 2018. The Environmental Leadership Development Project certification and other related documentation are provided in Appendix G-2 of this Draft EIR.

(3) Regional

(a) *South Coast Air Quality Management District*

The Project site is located in the South Coast Air Basin (Air Basin), which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the

⁵⁹ California Air Resources Board, California Greenhouse Gas Emissions for 2000 to 2016, Trends of Emissions and Other Indicators, 2018 Edition, https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf. Accessed August 2018.

western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Geronio Pass area in Riverside County. The South Coast Air Quality Management District (SCAQMD) is responsible for air quality planning in the Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards. This is accomplished through air quality monitoring, evaluation, education, implementation of control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations, and by supporting and implementing measures to reduce emissions from motor vehicles.

SCAQMD adopted a “Policy on Global Warming and Stratospheric Ozone Depletion” on April 6, 1990.⁶⁰ The policy commits SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:⁶¹

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.⁶² On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where SCAQMD is the Lead Agency. However, SCAQMD has not adopted a GHG significance threshold for land use development projects (e.g., mixed-use/commercial projects). A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds.⁶³ The aforementioned Working Group has been inactive since 2011, however, and SCAQMD has not formally adopted any GHG significance threshold for land use development projects.

⁶⁰ South Coast Air Quality Management District, SCAQMD’s Historical Activity on Climate Change, 2014, <http://www.aqmd.gov/nav/about/initiatives/climate-change>. Accessed June 2018.

⁶¹ South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, p. 3-7.

⁶² South Coast Air Quality Management District, Board Meeting, December 5, 2008, Agenda No. 31, <http://www3.aqmd.gov/hb/2008/December/081231a.htm>. Accessed June 2018.

⁶³ South Coast Air Quality Management District, Greenhouse Gases CEQA Significance Thresholds, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds>. Accessed June 2018.

(b) *SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/STS)*

On April 7, 2016, SCAG adopted the 2016-2040 RTP/SCS, which is an update to the previous 2012-2035 RTP/SCS.⁶⁴ Using growth forecasts and economic trends, the RTP/SCS provides a vision for transportation throughout the region for the next 25 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The 2016-2040 RTP/SCS successfully achieves and exceeds the GHG emission-reduction targets set by CARB by demonstrating an 8 percent reduction in vehicular emissions by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 as compared to the 2005 level on a per capita basis.⁶⁵ Compliance with and implementation of 2016-2040 RTP/SCS policies and strategies would have the co-benefits of reducing per capita criteria air pollutant emissions associated with reduced per capita vehicle miles traveled (VMT).

SCAG's 2016-2040 RTP/SCS provides specific strategies for its successful implementation. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and education, recreation and cultures, and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers such as in High-Quality Transit areas (HQTAs) and Transit Priority Areas (TPA); encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles. In addition, the 2016-2040 RTP/SCS includes new strategies to promote active transportation, supports local planning and projects that serve short trips, expand understanding and consideration of public health in the development of local plans and projects, and supports improvements in sidewalk quality, local bike networks, and neighborhood mobility areas. It also proposes increasing access to the California Coast Trail, light rail and bus stations, and promoting corridors that support biking and walking, such as through a regional greenway network and local bike networks. The 2016-2040 RTP/SCS proposes to better align active transportation investments with land use and transportation strategies, increase competitiveness of local agencies for federal and state funding, and to expand the potential for all people to use active transportation. CARB has accepted the SCAG GHG quantification determination in the 2016-2040 RTP/SCS.⁶⁶ The Project Site is located in an HQTAs, which SCAG defines as an area within a half mile of

⁶⁴ Southern California Association of Governments, 2016.

⁶⁵ Southern California Association of Governments, 2016.

⁶⁶ California Air Resources Board, Southern California Association of Governments' (SCAG) 2016 Sustainable Communities Strategy (SCS) ARB Acceptance of GHG Quantification Determination, June 2016, https://www.arb.ca.gov/cc/sb375/scag_executive_order_g_16_066.pdf. Accessed June 2018.

a well-serviced transit stop,⁶⁷ and a TPA, which the City defines as an area means an area within one-half mile of a major transit stop that is existing or planned.⁶⁸

(4) Local

(a) *Green New Deal*

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.⁶⁹ L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015.⁷⁰ It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

Within the Green New Deal, climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 mBTU/sqft in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.

⁶⁷ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, 2016, page 8, <http://scagrtpscscs.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

⁶⁸ City of Los Angeles, Department of City Planning, Zoning Information File ZI NO. 2451 Transit Priority Areas (TPAs)/Exemptions to Aesthetics and Parking within TPAs Pursuant to CEQA, <https://files.alston.com/files/docs/ZI%202451-TPA-Aesthetics-and-Parking.pdf>. Accessed October 2018.

⁶⁹ City of Los Angeles. LA's Green New Deal, 2019. http://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf, accessed September 3, 2019.

⁷⁰ City of Los Angeles, Sustainable City pLAn, April 2015, <http://plan.lamayor.org/wp-content/uploads/2017/03/the-plan.pdf>. Accessed July 2018

- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) *City of Los Angeles Green Building Code*

To achieve the goals outlined in its policy documents addressing climate change, in April 2008, the City adopted the Green Building Program Ordinance to address the impacts of new development. In 2011, 2014, 2016, and 2019, Chapter IX, Article 9, of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, was amended to incorporate various provisions of the CALGreen Code. The Los Angeles Green Building Code includes mandatory requirements and elective measures for three categories of buildings: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alternations to residential and non-residential buildings. The Los Angeles Green Building Code includes some requirements that are more stringent than State requirements such as increased requirements for electric vehicle charging spaces and water efficiency, which results in potentially greater GHG reductions from improved transportation and water efficiency.

(c) *City of Los Angeles General Plan*

The City does not have a General Plan Element specific to climate change and GHG emissions, and its General Plan does not have any stated goals, objectives, or policies specifically addressing climate change and GHG emissions. However, the following five goals from the City's General Plan Air Quality Element would also lead to GHG emission reductions⁷¹:

- Less reliance on single-occupancy vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;

⁷¹ City of Los Angeles, Air Quality Element, June 1991, pages IV-1 to IV-4. Available: <https://planning.lacity.org/cwd/gnlpln/aqltyelt.pdf>. Accessed May 2018.

- Minimal impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels, and the implement of conservation measures, including passive measures, such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

c) Existing Conditions

(1) Greenhouse Gas Emissions Inventory

Worldwide man-made emissions of GHGs are approximately 49,000 MMTCO₂e annually including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation).⁷² Emissions of CO₂ from fossil fuel use and industrial processes account for 65 percent of the total while CO₂ emissions from all sources accounts for 76 percent of the total. Methane emissions account for 16 percent and N₂O emissions for 6.2 percent. In 2016, the United States was the world's second largest emitter of carbon dioxide at 5,000 MMTCO₂e (China was the largest emitter of carbon dioxide at 10,500 MMTCO₂e).⁷³

CARB compiles GHG inventories for the State of California. Based on the 2016 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 429.4 MMTCO₂e including emissions resulting from imported electrical power.⁷⁴ Between 1990 and 2016, the population of California grew by approximately 9.5 million (from 29.8 to 39.3 million).^{75,76} This represents an increase of approximately 32 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from \$773 billion in 1990 to \$2.62 trillion in 2016 representing an increase of over three times the 1990 gross state product.⁷⁷ Despite the population and economic growth, California's net GHG emissions were reduced to below 1990 levels in 2016.

⁷² Intergovernmental Panel on Climate Change, Climate Change 2014: Synthesis Report, p. 45, 2014, <http://www.ipcc.ch/report/ar5/syr/>. Accessed September 2018.

⁷³ PBL Netherlands Environmental Assessment Agency and the European Commission Joint Research Center, Trends in Global CO₂ Emissions 2017 Report, pp. 20 and 24 (2017).

⁷⁴ California Air Resources Board, California Greenhouse Gas Inventory for 2000-2016– by Category as Defined in the 2008 Scoping Plan, https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed August 2018.

⁷⁵ United States Census Bureau, National and State Population Estimates: 1990-1994, 1995, <https://www.census.gov/library/publications/1995/demo/p25-1127.html>. Accessed August 2018.

⁷⁶ California Department of Finance, American Community Survey, 2016, http://www.dof.ca.gov/Reports/Demographic_Reports/American_Community_Survey/documents/Web_ACS2016_Pop-Race.xlsx. Accessed August 2018.

⁷⁷ California Department of Finance, Gross State Product, http://www.dof.ca.gov/Forecasting/Economics/Indicators/Gross_State_Product/documents/BBStateGDP_000.xls. Accessed August 2018. Amounts are based on current dollars as of the date of the report (May 2018).

According to CARB, the declining trend coupled with the state's GHG reduction programs (such as the RPS, LCFS, vehicle efficiency standards, and declining caps under the Cap and Trade Program) demonstrate that California is on track to meet the 2020 GHG reduction target codified in HSC, Division 25.5, also known as AB 32.⁷⁸ **Table IV.F-2, *State of California Greenhouse Gas Emissions***, identifies and quantifies Statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2016 (i.e., the most recent year in which data are available from CARB). As shown in the table, the transportation sector is the largest contributor to Statewide GHG emissions at approximately 39 percent in 2016.

TABLE IV.F-2
STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS

Category	Total 1990 Emissions using IPCC SAR (MMTCO₂e)	Percent of Total 1990 Emissions	Total 2016 Emissions using IPCC AR4 (MMTCO₂e)	Percent of Total 2016 Emissions
Transportation	150.7	35%	169.4	39%
Electric Power	110.6	26%	68.6	16%
Commercial	14.4	3%	15.2	4%
Residential	29.7	7%	24.2	6%
Industrial	103.0	24%	89.6	21%
Recycling and Waste ^a	—	—	8.8	2%
High-GWP/Non-Specified ^b	1.3	<1%	19.8	5%
Agriculture/Forestry	23.6	6%	33.8	8%
Forestry Sinks	-6.7		-- ^c	--
Net Total (IPCC AR4) ^d	431	100%	429.4	100%

^a Included in other categories for the 1990 emissions inventory.

^b High-GWP gases are not specifically called out in the 1990 emissions inventory.

^c Revised methodology under development (not reported for 2016).

^d CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.

Sources: California Air Resources Board, Staff Report: California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, 2007; California Air Resources Board, California Greenhouse Gas Inventory for 2000-2016— by Category as Defined in the 2008 Scoping Plan. Available at: https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed August 2018.

⁷⁸ California Air Resources Board, Frequently Asked Questions for the 2016 Edition California Greenhouse Gas Emission Inventory, 2016, https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_faq_20160617.pdf. Accessed January 2018.

(2) Existing Project Site Greenhouse Gas Emissions

The Project Site is located within the Downtown area of the City of Los Angeles, and is currently developed with five commercial buildings totaling approximately 35,651 square feet and an approximately 5,952 square-foot paved parking and hardscape area, for a total site area of 41,603 square feet. These existing uses would be demolished and removed to allow for development of the Project. GHG emissions are currently associated with vehicle trips to and from the existing Project Site, on-site combustion of natural gas for heating, on-site combustion emissions from landscaping equipment (area source), off-site combustion of fossil fuels for electricity, and off-site emissions from solid waste decomposition, water conveyance, and wastewater treatment. GHG emissions are estimated using the California Emissions Estimator Model (CalEEMod), which is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects.

CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.⁷⁹ CalEEMod was used to estimate GHG emissions from electricity, natural gas, solid waste, water and wastewater, and landscaping equipment. Building electricity and natural gas usage rates are adjusted to account for prior Title 24 Building Energy Efficiency Standards.⁸⁰ Mobile source emissions have been estimated based on CARB's on-road vehicle emissions factor (EMFAC) model, EMFAC2017. A detailed discussion of the methodology used to estimate the existing Project Site emissions reported below is provided in subsection IV.F.3.b(1), *Methodology – Quantification of Greenhouse Gas Emissions*.

Existing operational emissions for the Project Site are presented in **Table IV.F-3, Estimated Existing Project Site GHG Emissions**. Details regarding the calculation of the existing Project Site emissions are provided in Appendix G of this Draft EIR.

⁷⁹ See: <http://www.caleemod.com>.

⁸⁰ California Air Resources Board, CalEEMod User's Guide, Appendix E, Section 5, September 2016, http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/06_appendix-e2016-3-1.pdf?sfvrsn=2. Accessed June 2018. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

TABLE IV.F-3
ESTIMATED EXISTING PROJECT SITE GREENHOUSE GAS EMISSIONS

Emissions Sources	Project CO₂e (Metric Tons per Year) ^{a,b}
Existing Operational	
On Road Mobile Sources	330
Area	<1
Energy (Electricity and Natural Gas)	81
Water Conveyance and Wastewater Treatment	30
Solid Waste	5
Existing Total Emissions	446

^a Totals may not add up exactly due to rounding in the modeling calculations

^b CO₂e emissions are calculated using the global warming potential values from the IPCC AR4. Although the IPCC has released AR5 with updated GWPs, CARB reports the Statewide GHG inventory using the AR4 GWPs, which is consistent with international reporting standards.

SOURCE: ESA, 2019.

(3) Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model it, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC's *Fifth Assessment Report, Summary for Policy Makers* states that, "it is *extremely likely* that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forces [*sic*] together."⁸¹ A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity.⁸²

According to the California EPA, the potential impacts in California due to global climate change may include: loss in snow pack; sea level rise; more extreme heat days per year;

⁸¹ Intergovernmental Panel on Climate Change, Climate Change 2014: Synthesis Report, Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Summary for Policy Makers, 2014, page 5, https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf. Accessed May 2018.

⁸² Anderegg, William R. L., J.W. Prall, J. Harold, S.H., Schneider, Expert Credibility in Climate Change, Proceedings of the National Academy of Sciences of the United States of America, 2010, 107:12107-12109.

more high ozone days; more large forest fires; more drought years; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation.⁸³ Data regarding potential future climate change impacts are available from the California Natural Resources Agency (CNRA), which in 2009 published the *California Climate Adaptation Strategy*⁸⁴ as a response to Executive Order S-13-2008. The CNRA report lists specific recommendations for state and local agencies to best adapt to the anticipated risks posed by a changing climate. In accordance with the *California Climate Adaptation Strategy*, the CEC was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers.⁸⁵ The website, known as Cal-Adapt, became operational in 2011.⁸⁶ The information provided by the Cal-Adapt website represents a projection of potential future climate scenarios. The data are comprised of the average values from a variety of scenarios and models, and are meant to illustrate how the climate may change based on a variety of different potential social and economic factors. Below is a summary of some of the potential climate change effects and relevant Cal-Adapt data, reported by an array of studies that could be experienced in California as a result of global warming and climate change.

(a) Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore, its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state.⁸⁷

According to the Cal-Adapt website, the portion of the City of Los Angeles in which the Project Site is located could result in an average increase in temperature of approximately 7 to 10 percent (about 4.9 to 7.6°F) by 2070-2099, compared to the baseline 1961-1990

⁸³ California Environmental Protection Agency, Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, 2006.

⁸⁴ California Natural Resources Agency, Climate Action Team, 2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008, 2009.

⁸⁵ California Natural Resources Agency, Climate Action Team, 2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008, 2009.

⁸⁶ Cal-Adapt, Website, <http://cal-adapt.org>.

⁸⁷ California Energy Commission, Scenarios of Climate Change in California: An Overview, February 2006. <http://www.energy.ca.gov/2005publications/CEC-500-2005-186/CEC-500-2005-186-SF.PDF>. Accessed January 2018.

period.⁸⁸ Data suggests that the predicted future increase in temperatures as a result of climate change could potentially interfere with efforts to control and reduce ground-level ozone in the region.

(b) *Water Supply*

Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. Studies have found that, “Considerable uncertainty about precise impacts of climate change on California hydrology and water resources will remain until we have more precise and consistent information about how precipitation patterns, timing, and intensity will change.”⁸⁹ For example, some studies identify little change in total annual precipitation in projections for California while others show significantly more precipitation.⁹⁰ Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full.⁹¹ Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge.⁹²

The California Department of Water Resources report on climate change and effects on the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta, concludes that “climate change will likely have a significant effect on California’s future water resources...[and] future water demand.” It also reports that “much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain.” It also reports that the relationship between climate change and its potential effect on water demand is not well understood, but “[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future.” Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from

⁸⁸ Cal-Adapt, 2017. Annual Average Maximum Temperatures for the Downtown Los Angeles area of the City of Los Angeles, <http://cal-adapt.org/tools/annual-averages/#climatevar=tasmax&scenario=rcp45&lat=34.03125&lng=-118.28125&boundary=locagrid&units=fahrenheit>. Accessed June 2018.

⁸⁹ Pacific Institute for Studies in Development, Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature, July 2003, http://www.pacinst.org/reports/climate_change_and_california_water_resources.pdf. Accessed January 2018.

⁹⁰ Pacific Institute for Studies in Development, Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature, July 2003, http://www.pacinst.org/reports/climate_change_and_california_water_resources.pdf. Accessed January 2018.

⁹¹ Pacific Institute for Studies in Development, Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature, July 2003, http://www.pacinst.org/reports/climate_change_and_california_water_resources.pdf. Accessed January 2018.

⁹² Pacific Institute for Studies in Development, Environment and Security, Climate Change and California Water Resources: A Survey and Summary of the Literature, July 2003, http://www.pacinst.org/reports/climate_change_and_california_water_resources.pdf. Accessed January 2018.

reservoirs could result from only small changes in inflows.⁹³ In its *Fifth Assessment Report*, the IPCC states “Changes in the global water cycle in response to the warming over the 21st century will not be uniform. The contrast in precipitation between wet and dry regions and between wet and dry seasons will increase, although there may be regional exceptions.”⁹⁴

(c) *Hydrology and Sea Level Rise*

As discussed above, climate changes could potentially affect: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm, and melting of ice over land. Absent planning and preparation, a rise in sea levels could result in coastal flooding and erosion and could jeopardize California’s water supply, and increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

(d) *Agriculture*

California has a \$30 billion agricultural industry that produces one half of the country’s fruits and vegetables. Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; without planning and preparations. Crop-yield could be threatened by a less reliable water supply. Also, greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thus affect their quality.⁹⁵

(e) *Ecosystems and Wildlife*

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists expect that the average global surface temperature could rise by 2 to 11.5°F (1.1 to 6.4°C) by 2100, with significant regional variation.⁹⁶ Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Sea level could rise as much as 2 feet along most of the U.S. coast. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species’

⁹³ California Department of Water Resources Climate Change Report, Progress on Incorporating Climate Change into Planning and Management of California’s Water Resources, July 2006, <https://www.water.ca.gov/LegacyFiles/climatechange/docs/DWRClimateChangeJuly06.pdf>. Accessed January 2018.

⁹⁴ Intergovernmental Panel on Climate Change, Fifth Assessment Report, Summary for Policy Makers, 2013, 20.

⁹⁵ California Climate Change Center, Our Changing Climate: Assessing the Risks to California, 2006.

⁹⁶ National Research Council, Advancing the Science of Climate Change, 2010.

composition within communities; and (4) ecosystem processes such as carbon cycling and storage.^{97, 98}

3. Project Impacts

a) Thresholds of Significance

In assessing impacts related to greenhouse gas emissions in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the thresholds of significance. In accordance with Appendix G of the State CEQA Guidelines, a project would have a significant impact related to greenhouse gas emissions if it would:

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

Section 15064.4 of the State CEQA Guidelines gives lead agencies the discretion to determine whether to assess the significance of GHG emissions quantitatively or qualitatively. This section recommends considering certain factors, among others, when determining the significance of a project's GHG emissions, including the extent to which the project may increase or reduce GHG emissions as compared to the existing environment; whether the project exceeds an applicable significance threshold; and extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs. The State CEQA Guidelines do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including by looking to thresholds developed by other public agencies, such as air districts, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see Section 15064.7(c)).

The California Natural Resources Agency's *Final Statement of Reasons* for Regulatory Action for the Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 ("Final Statement of Reasons") similarly provides that project-level quantification of emissions should be conducted where it would assist in determining the significance of emissions, even where no numeric threshold applies. In such cases, the Final Statement of Reasons provides that qualitative thresholds can be utilized to determine the ultimate significance of project-level impacts based on a project's consistency with plans, which can include applicable

⁹⁷ Parmesan, C., 2004. Ecological and Evolutionary Response to Recent Climate Change.

⁹⁸ Parmesan, C and Galbraith, H, 2004. Observed Ecological Impacts of Climate Change in North America. Arlington, VA: Pew. Cent. Glob. Clim. Change.

regional transportation plans. Even when using a qualitative threshold, quantification can inform “the qualitative factors” and indicate “whether emissions reductions are possible, and, if so, from which sources.”⁹⁹

The California Natural Resources Agency clarified that the amendments to the State CEQA Guidelines focus on the effects of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA’s requirements for the analysis of cumulative impacts (see Section 15064(h)(3)).¹⁰⁰

Although the Project’s GHG emissions have been quantified as discussed under the Methodology section below, neither CARB, SCAQMD, nor the City has adopted quantitative project-level significance thresholds for assessing impacts related to GHG emissions applicable to the Project. The Governor’s Office of Planning and Research (OPR) released a technical advisory on CEQA and climate change that provides some guidance on assessing the significance of GHG emissions, which states that “lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice,” and that while “climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.”¹⁰¹ Furthermore, the technical advisory states that “CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project.”¹⁰²

Per State CEQA Guidelines Section 15064(h)(3), a project’s incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.¹⁰³ To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.¹⁰⁴ Examples of such programs include a “water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat

⁹⁹ California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, page 20-26, http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed June 2018.

¹⁰⁰ See generally California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, pages 11-13, 14, 16; see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009, https://www.opr.ca.gov/docs/Transmittal_Letter.pdf. Accessed June 2018.

¹⁰¹ Governor’s Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, 2008.

¹⁰² Governor’s Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, 2008.

¹⁰³ California Code of Regulations, Title 14, Section 15064(h)(3).

¹⁰⁴ California Code of Regulations, Title 14, Section 15064(h)(3).

conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions.”¹⁰⁵

Thus, State *CEQA Guidelines* Section 15064(h)(3) allows a Lead Agency to make a finding of non-significance for GHG emissions if a project complies with a program and/or other regulatory schemes to reduce GHG emissions.¹⁰⁶

In view of all of the above, the City has determined to use Appendix G of the CEQA Guidelines as its thresholds of significance in assessing the significance of the Project’s potential GHG emissions. The City has also determined to quantify the Project’s emissions. In the absence of any adopted quantitative threshold, the City has determined that the Project’s GHG emissions would not have a significant project-level or cumulative effect on the environment under the Appendix G Thresholds if the Project would be consistent with the applicable regulatory plans and policies to reduce GHG emissions, which include the emissions reduction measures included within CARB’s Climate Change Scoping Plan, SCAG’s 2016-2040 RTP/SCS, and the City’s Green New Deal, and Green Building Code. The Project’s quantified GHG emissions and the comparison between the No Implementation of Emissions Reductions Measures (NIERM) and the as proposed Project scenarios are used where applicable and relevant to assist in analyzing whether the Project is consistent with and/or would conflict with GHG reduction plans and policies when determining significance under the Appendix G Thresholds.

b) Methodology

The analysis of the Project’s construction and operational GHG emissions has been conducted as described below. Additional supporting documentation is provided in the Greenhouse Gas Technical Appendix in Appendix G-1 of this Draft EIR.

¹⁰⁵ California Code of Regulations, Title 14, Section 15064(h)(3).

¹⁰⁶ See, for example, San Joaquin Valley Air Pollution Control District (SJVAPCD), CEQA Determinations of Significance for Projects Subject to ARB’s GHG Cap-and-Trade Regulation, APR-2025 (June 25, 2014), in which the SJVAPCD “determined that GHG emissions increases that are covered under ARB’s Cap-and-Trade regulation cannot constitute significant increases under CEQA...” Furthermore, the SCAQMD has taken this position in CEQA documents it has produced as a Lead Agency. The SCAQMD has prepared 3 Negative Declarations and one Draft Environmental Impact Report that demonstrate the SCAQMD has applied its 10,000 MTCO₂e/yr significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See SCAQMD, Final Negative Declaration for Ultramar Inc. Wilmington Refinery Cogeneration Project, SHC No. 2012041014 (October 2014); SCAQMD Final Negative Declaration for Phillips 99 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project, SCH No. 2013091029 (December 2014); SCAQMD Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA, SCH No. 2014101040 (December 2014); and SCAQMD Final Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project, SCH No. 2014121014 (August 2015).

(1) Quantification of Greenhouse Gas Emissions

(a) *The Project's Greenhouse Gas Emissions*

The total GHG emissions from the Project were quantified to determine the level of the Project's estimated annual GHG emissions. The purpose of providing an estimate of the Project's GHG emissions is to satisfy State CEQA Guidelines Section 15064.4(a), which requires a good-faith effort to describe, calculate, or estimate the amount of GHGs resulting from the Project. Additional purposes of the Project's GHG emissions estimate are to demonstrate the reduction in the Project's incremental contribution of GHG emissions that result from regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions, and to provide further justification that the Project is consistent with plans adopted for the reduction or mitigation of GHG emissions. The significance of the Project's GHG impacts is not based on the amount of GHG emissions resulting from the Project.

The Climate Registry has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities.¹⁰⁷ The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over the emissions. They include:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.¹⁰⁸

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information" to CARB to be considered for future strategies by the industrial sector.¹⁰⁹ Additionally, the Office of Planning and Research directs lead agencies to "make a good-faith effort, based on available information, to calculate, model, or estimate...GHG emissions from a project, including the emissions associated with vehicular traffic, energy

¹⁰⁷ The Climate Registry, General Reporting Protocol Version 2.1, 2016.

¹⁰⁸ Embodied energy includes energy required for water pumping and treatment for end-uses. Third-party vehicles include vehicles used by residential use guests and other visitors of the Project Site.

¹⁰⁹ California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), 2007.

consumption, water usage and construction activities.”¹¹⁰ Therefore, direct and indirect emissions have been calculated for the Project.

A fundamental difficulty in the analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular planning program or project because the planning effort or project may cause a shift in the locale for some type of GHG emissions, rather than causing “new” GHG emissions. As a result, there is a lack of clarity as to whether a project’s GHG emissions represent a net global increase, reduction, or no change in GHGs that would exist if the project were not implemented. However, this analysis recognizes that a new building would result in new building energy-related GHG emissions, since the new building and its energy footprint did not previously exist. Therefore, the analysis of the Project’s GHG emissions is particularly conservative in that it assumes that all of the net GHG emissions are new additions to the atmosphere.

For the purpose of this analysis, it is considered reasonable and consistent with criteria pollutant calculations to consider those GHG emissions resulting from Project-related incremental (net) increases in direct sources, such as the use of on-road mobile vehicles, electricity, and natural gas as compared to existing conditions. Direct sources also include Project construction activities such as demolition, hauling, and construction worker trips. In addition to the direct sources, this analysis also considers indirect GHG emissions from water conveyance, wastewater generation, and solid waste handling. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis.

GHG emissions were estimated using the CalEEMod, which is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.¹¹¹

Consistent with the Air Quality analysis in this Draft EIR, construction emissions were forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source emissions factors using CalEEMod. The output values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the same construction phasing assumptions used in the criteria pollutant analysis (see Section IV.B, *Air Quality*, in this Draft EIR) to generate

¹¹⁰ Governor’s Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, p. 5, 2008, <http://opr.ca.gov/docs/june08-ceqa.pdf>. Accessed May 2018.

¹¹¹ See: <http://www.caleemod.com.VMT>

GHG emissions values for each construction year. The SCAQMD guidance, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, recognizes that construction-related GHG emissions from projects “occur over a relatively short-term period of time” and that “they contribute a relatively small portion of the overall lifetime project GHG emissions.”¹¹² A more detailed discussion of the methodology for projecting the Project construction emissions and descriptions of the Project’s construction phasing and equipment list are available in the *Greenhouse Gas Technical Appendix* for the Project, which is provided in Appendix G of this Draft EIR.

CalEEMod was also used to estimate the Project’s operational GHG emissions from electricity, natural gas, solid waste, water and wastewater, and landscaping equipment. Building electricity and natural gas usage rates were adjusted to account for current Title 24 Building Energy Efficiency Standards. Mobile source emissions were estimated based on CARB’s on-road vehicle emissions factor model, EMFAC2017, which is also incorporated into CalEEMod. A detailed discussion of the methodology used to estimate the Project’s operational emissions is provided in Appendix G of this Draft EIR. A summary of that methodology is provided below.

Operational mobile source GHG emissions associated with the Project were calculated using the estimated VMT from the Transportation Study prepared by The Mobility Group based on the assessment conducted using data from the Project’s Environmental Leadership Development Project (ELDP) analysis pursuant to AB 900, which was based on CalEEMod VMT factors.¹¹³ The emissions generated by the VMT were calculated using the mobile source GHG emission factors from the EMFAC2017 model. The estimated VMT from the Transportation Study prepared by The Mobility Group takes into account trip distance reductions due to the Project’s characteristics, including pass-by trips, residential and job densities, neighborhood and site walkability and connectivity, and proximity to public transit and job centers. The estimated VMT reductions were provided by the Project Transportation Study.¹¹⁴ Additional information based on the equations and methodologies prescribed in the CAPCOA guidance document, *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction calculation formulas for transportation characteristics and measures was used to further evaluate the Project’s VMT reductions.¹¹⁵ The EMFAC2017 emission factors are then applied to the annual VMT to obtain annual mobile source GHG emissions.

Section IV.M, *Transportation and Traffic*, of this Draft EIR, also includes a VMT analysis based upon the City’s recently adopted VMT Calculator that has been developed to

¹¹² South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008, [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2). Accessed January 2018.

¹¹³ The Mobility Group, 1045 S Olive Project – Transportation Study, 2019. This document is provided at the end of Appendix G of this Draft EIR.

¹¹⁴ The Mobility Group, 1045 S Olive Project – Transportation Study, 2019.

¹¹⁵ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, (2010), <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

measure VMT in a manner that is consistent with State CEQA Guidelines Section 15064.3. This analysis differs from the Project's ELDP analysis pursuant to AB 900. The VMT analysis using the recently adopted City methodology, which is included in Section IV.M, *Transportation and Traffic*, and Appendix N-4, *VMT Analysis, 2019*, of this Draft EIR, results in lower VMT than the VMT values in the ELDP analysis. As a conservative approach, the VMT values from the ELDP analysis, which are greater in amount, are used in this Draft EIR for evaluating operational mobile source air quality, greenhouse gas, and energy impacts.

With regard to energy demand, GHG emissions result from the consumption of fossil fuels to generate electricity and to provide heating and hot water. Future energy demand rates were estimated based on the specific square footage of the multi-family residential, and restaurant/retail land uses, as well as the predicted water supply needs of the Project. According to CARB staff, for projects that would voluntarily meet the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act (the Act), “[i]f an applicant would like to use an EF [emission factor] that represents the state’s Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 [pounds] CO₂/MWh may be used.”¹¹⁶ According to CARB staff, the “EF represents a ‘marginal’ supply profile for new generation that will be added to the grid in the years 2020 and beyond, and is consistent with the methodology used in state emission rule impact assessments.”¹¹⁷ Therefore, consistent with the CARB staff recommendation, a CO₂ intensity factor of 595 pounds of CO₂ per MWh was used for electricity emissions for years 2020 through 2023. Future year CO₂ intensity factors were scaled proportionately based on the future year renewable energy targets of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. Emission factors for CH₄ and N₂O were obtained from CalEEMod.¹¹⁸

CalEEMod was used to estimate solid waste disposal and diversion rates from the Project. The emissions are based on the waste disposal rate for the land uses, the City’s waste diversion rate of 76 percent for municipal solid waste,¹¹⁹ and the GHG emission factors for solid waste decomposition. The GHG emission factors, particularly for CH₄, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery) are statewide averages and are used in this assessment.

¹¹⁶ California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017. This document is provided at the end of Appendix G of this Draft EIR.

¹¹⁷ California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017. This document is provided at the end of Appendix G of this Draft EIR.

¹¹⁸ California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed January 2017.

¹¹⁹ City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, 2013, <https://bioenergyproducers.files.wordpress.com/2016/11/la-zero-waste-report.pdf>. Accessed June 2018.

GHG emissions from water and wastewater result from the energy required to supply and distribute the water and treat the wastewater. Emissions were calculated using CalEEMod. Refer to Section IV.O.2, *Water Supply*, of this Draft EIR for the estimated water usage rate for the Project.

Other sources of GHG emissions from operation of the Project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The CalEEMod software uses landscaping equipment GHG emission factors from the CARB OFFROAD model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.¹²⁰ The Project would not include fireplaces in the residential building, under AQ-PDF-1; therefore, fireplace emissions were not included in the GHG analysis for the residential building.

Stationary sources would include an on-site emergency generator with an estimated rating at 708 kilowatts (950 horsepower). The emergency generator would result in emissions during maintenance and testing operations and its emissions were estimated separately, outside of the CalEEMod software. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470. Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

Emissions calculations also include credits or reductions for the Project Design Features and GHG-reducing measures, some of which are required by regulation, such as compliance with SCAQMD rules and regulations and reductions in energy and water demand. Since the Project is subject to the LA Green Building Code, Project Design Features will be incorporated consistent with the minimum requirements. Additionally, as stated above, this Project is committed to achieving the USGBC LEED Gold Certification or equivalent rating.

CAPCOA has provided guidance on mitigating or reducing GHG emissions from land use development projects. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures* which provides GHG reduction values for recommended GHG reduction strategies.¹²¹ The CAPCOA guidance document was utilized in this analysis for evaluating reductions from physical and operational Project characteristics and Project Design Features in CalEEMod.

The Project's Operational GHG emissions are assessed based on the Project-related incremental increase in GHG emissions as compared to baseline conditions. Under CEQA, the baseline environmental setting is established as of the time that the

¹²⁰ California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, June 13, 2003, http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed June 2019.

¹²¹ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, 2010, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

environmental assessment commences.¹²² The trip generation forecasts provided in the Project Transportation Study¹²³ include trip rates for the existing land uses on the existing Project Site. Thus, the net change in Project trips was calculated as the Project trips minus the existing trips generated at the Project Site. Similarly, the net changes in the Project's energy, waste, and water GHG emissions were calculated as the Project's emissions minus the emissions from the entitled land uses on the existing Project Site. Detailed GHG emissions calculations are provided in Appendix G of this Draft EIR.

(b) Existing Site Emissions

Existing site GHG emissions were estimated using the same methodology as discussed for the Project. Operational mobile source GHG emissions associated with the existing site were calculated based on the estimated VMT reported in the Traffic Study¹²⁴ using the CalEEMod and EMFAC2017 models. Existing site GHG emissions from energy and water demand were estimated based on the estimated electricity and natural gas needs of the existing site uses as modeled in CalEEMod. Existing site GHG emissions from solid waste disposal were also calculated using CalEEMod based on the solid waste disposal rates in Section IV.O, *Utilities*, of this Draft EIR and the City's waste diversion rate of 76 percent for municipal solid waste.¹²⁵

(c) The No Implementation of Emissions Reduction Measures (NIERM) Scenario Emissions and the Comparison Analysis

As noted above, the emissions reduction measures discussed within CARB's Climate Change Scoping Plan, AB 900, SCAG's 2016-2040 RTP/SCS, the City's Green New Deal, and the LA Green Building Code are applicable to the Project. These plans and policies are intended to reduce GHG emissions in order to meet the targets of AB 32 and SB 32. In order to demonstrate the efficacy of the measures required under these applicable GHG reduction plans and policies in reducing the Project's incremental contribution of GHG emission, and thereby provide further justification that the Project is consistent with plans adopted for the reduction or mitigation of GHG emissions, this analysis compares the Project's GHG emissions to the emissions that would have been generated by the Project in the absence of GHG emission reduction Project features and characteristics (the no implementation of emission reduction measures or "NIERM" scenario). This approach mirrors the concepts used in CARB's Climate Change Scoping Plan for the implementation of AB 32 and SB 32. This methodology is used to assess the Project's consistency with the applicable GHG reduction plans and policies and to demonstrate the efficacy of the measures contained therein, but it is not used as a threshold of significance.

¹²² State CEQA Guidelines Section 15125 (a).

¹²³ The Mobility Group, 1045 S Olive Project – Transportation Study, 2019.

¹²⁴ The Mobility Group, 1045 S Olive Project – Transportation Study, 2019.

¹²⁵ City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, 2013, <https://bioenergyproducers.files.wordpress.com/2016/11/la-zero-waste-report.pdf>. Accessed June 2018.

Evaluating the Project's reduction in GHG emissions against the NIERM scenario requires providing a quantitative estimate of GHG emissions based on the specific circumstances of the Project in the context of relevant State activities and mandates. This requires the following three GHG emissions inventories:

- Baseline, existing environmental setting, GHG emissions (refer to Table IV.F-3;
- NIERM scenario GHG emissions; and
- "As proposed" Project GHG emissions with Project Design Features and Project Characteristics.

The analysis in this section includes potential GHG emissions under the NIERM scenario and from the Project at buildout based on State actions and mandates expected to be in force by the Project's anticipated opening year of 2023 (e.g., Pavley I and II Standards, implementation of California's Statewide Renewables Portfolio Standard beyond current levels of renewable energy, and the California LCFS). Measures identified in the Climate Change Scoping Plan that have not been approved or for which regulations have not yet been adopted were not credited in this analysis (e.g., implementation of Mobile Source Strategy-Cleaner Technology and Fuels). Similarly, emissions reductions related to cap-and-trade were not included in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project's GHG emissions at buildout.

The NIERM scenario is used to enable a comparison with Project-generated GHG emissions under the "as proposed" scenario. The NIERM scenario does not consider site-specific conditions or Project Design Features. Specific NIERM scenario assumptions for each source category are discussed below in section 3.b)(1), *Methodology – The NIERM Scenario Emissions and the Comparison Analysis*. As an example, GHG emissions from water and wastewater due to the energy needed for supply, treatment and distribution under the NIERM scenario do not account for AQ-PDF-1, which would incorporate features that would reduce Project indoor water usage by a minimum of 40 percent and outdoor water usage by a minimum of 50 percent. Instead, the NIERM scenario considers the Project without water use reduction features. Mobile source emissions under the NIERM scenario were calculated based on the VMT from the Project Transportation Study prepared by The Mobility Group without taking into account trip distance reductions due to the Project Site-specific characteristics, including, pass-by trips, residential and job densities, neighborhood and site walkability and connectivity, and proximity to public transit and job centers.¹²⁶ GHG emissions related to energy use under the NIERM scenario were calculated based on complying with the minimum performance level required under Title 24.

By contrast, the "as proposed" scenario emissions calculations for the Project include credits or reductions for applicable regulatory requirements and for the Project Design

¹²⁶ The Mobility Group, 1045 S Olive Project – Transportation Study, 2019. This document is provided at the end of Appendix G of this Draft EIR.

Features and Project Characteristics set forth in this Draft EIR, such as reductions in energy, solid waste generation, and water demand. In addition, as mobile source GHG emissions are directly dependent on the number of vehicle trips and VMT, a decrease in the number of Project-generated trips and VMT as a result of Project Design Features and land use characteristics would provide a proportional reduction in mobile source GHG emissions.

(2) Comparison of Project Characteristics to Applicable Plans and Policies

The Project's GHG emissions are evaluated by comparing the Project to applicable GHG reduction strategies and local actions approved or adopted by CARB, SCAG, and the City.

The State CEQA Guidelines encourage lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. As discussed previously, the City has established goals and actions to reduce the emission of GHGs from both public and private activities in the Green New Deal. While the City does not have a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan as recommended in the relevant amendments to the State CEQA Guidelines, the City has adopted the Green New Deal and LA Green Building Code, which encourage and require applicable projects to implement energy efficiency measures. In addition, the CCAT Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in HSC Division 25.5 and Executive Order S-3-05. Thus, if a project is designed in accordance with these policies and regulations, it would result in a less than significant impact, because it would be consistent with the overarching State regulations on GHG reduction (HSC Division 25.5).

c) Project Characteristics

As discussed below, CAPCOA identifies certain land use characteristics as contributing to the reduction in GHG emissions. These include the following: Increased Density, Location Efficiency, Increased Land Use Diversity and Mixed-Uses, Increased Destination Accessibility, Increased Transit Accessibility, Improve Design of Development, and Provide Pedestrian Network Improvements. Development that contributes to the establishment of these land use characteristics contributes to reductions in GHG emissions.

The Project is an urban "infill" project, as it would replace existing commercial and manufacturing uses on underutilized parcels located in Downtown Los Angeles with a high-density, mixed-use development. The Project proposes higher density, consistent with compact growth, on a parcel of infill urban land accessible to and well served by public transit including frequent and comprehensive transit services. The Project's new housing and job growth would be located in an HQTAs, which SCAG defines as an area

within a half mile of a well-served transit stop,¹²⁷ and a TPA, which the City defines as an area means an area within one-half mile of a major transit stop that is existing or planned.¹²⁸ As discussed in subsection 3.c), *Project Characteristics*, below, the Project's Urban location setting and its land use characteristics, as identified by CAPCOA, of Increased Density, Location Efficiency, Increased Land Use Diversity and Mixed-Uses, Increased Destination Accessibility, Increased Transit Accessibility, Improve Design of Development, and Provide Pedestrian Network Improvements demonstrate that the Project developed at the Project Site would result in reduced vehicle trips, VMT, and associated transportation-related GHG emissions, as well as air pollutant emissions, compared to the statewide and Air Basin averages.

The Project would be designed to meet the standards for the USGBC LEED standards through the incorporation of green building techniques and other sustainability features such as low albedo color paving and drought-tolerant landscaping. Key Project Design Features that would contribute to energy efficiencies include stormwater retention; use of high efficiency fixtures and appliances, water conservation features; recycling of solid wastes, and not including the use of natural gas fireplaces in the residential units. The Project would also provide bicycle parking and preferred parking for fuel efficient or electric vehicles. The Project would also be designed to comply with the LA Green Building Ordinance.

The following Project Design Features (PDFs) would be incorporated into the Project:

AQ-PDF-1: Green Building Features: (refer to Section IV.B, *Air Quality*, of this Draft EIR for additional details). This Project Design Feature requires the Project to incorporate energy and water efficiency designs that achieve the equivalent of the USGBC LEED Gold Certification level for new buildings, which would minimize building energy demand and associated GHG emissions.

GHG-PDF-1: GHG Emission Offsets: The Project will provide or obtain GHG emission offsets as required as described in the Project's Environmental Leadership Development Project certification and related documentation pursuant to the *Jobs and Economic Improvement Through Environmental Leadership Act*. Prior to issuance of any Certificate of Occupancy for the Project, the Applicant or its successor shall commit to entering into one or more contracts to purchase carbon credits from a recognized and reputable carbon registry (to be selected from an accredited registry), which contract, together with any previous contracts for the purchase of carbon credits, shall evidence the purchase of carbon credits in an amount sufficient to offset the Operational Emissions attributable to the

¹²⁷ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy, 2016, page 8, <http://scagrtpscscs.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed June 2018.

¹²⁸ City of Los Angeles, Department of City Planning, Zoning Information File ZI NO. 2451 Transit Priority Areas (TPAs)/Exemptions to Aesthetics and Parking within TPAs Pursuant to CEQA, <https://files.alston.com/files/docs/ZI%202451-TPA-Aesthetics-and-Parking.pdf>. Accessed October 2018.

Project, and shall be calculated on a net present value basis for a 30-year useful life.

WS-PDF-1: Water Conservation Features (refer to Section IV.O.2, *Water Supply*, of this Draft EIR for additional details). This Project Design Feature requires the Project implement water conservation features that are in addition to those required by codes and ordinances, which would minimize building water demand and associated GHG emissions.

d) Analysis of Project Impacts

Threshold a) *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?* Less than Significant Impact.

(1) Construction Emissions

As explained above, the GHG emissions associated with construction under the Project NIERM scenario and the Project scenario were calculated for each year of construction activity using CalEEMod. The results of these GHG emissions calculations are presented in **Table IV.F-4, *Estimated NIERM Scenario and Project Scenario Construction GHG Emissions***. Although the GHGs generated during construction are considered to be one-time emissions, SCAQMD guidance directs that they be amortized over the Project's lifetime of 30 years (see SCAQMD's *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*)¹²⁹ and that one year of the amortized emissions be added to the Project's annual net operational GHG emissions when assessing the significance of the Project's lifetime GHG emissions. While the existing uses at the Project Site would cease to operate once construction of the Project commences, the Project's construction GHG emissions shown in Table IV.F-4 do not net out the existing GHG emissions that would no longer be emitted.

**TABLE IV.F-4
ESTIMATED NIERM SCENARIO AND PROJECT SCENARIO CONSTRUCTION GHG EMISSIONS**

Emission Source	CO₂e (Metric Tons) ^{a,b,c}
Construction Year 1	1,212
Construction Year 2	1,629
Construction Year 3	2,564
Construction Year 4	1,425

¹²⁹ South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, 2008, [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2). Accessed January 2018.

Emission Source	CO ₂ e (Metric Tons) ^{a,b,c}
Total	6,830
Amortized Over 30 Years	228

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix G of this Draft EIR.

^b CO₂e emissions are calculated using the global warming potential values from the Intergovernmental Panel on Climate Change Fourth Assessment Report.

^c The analysis conservatively assumes the NIERM construction emissions are the same as the Project, since it is a comparable project of the same size and land uses with similar construction activities. Construction GHG emissions are amortized over 30 years and included in the operational GHG emissions, discussed in the next section.

Source: ESA, 2019.

(2) Operational Emissions

As explained above, the emissions of GHGs associated with operation of the Project were calculated using CalEEMod, taking into account the Project's compliance with the portions of the LA Green Building Code applicable to residential and mixed-use development, as well as its incorporation of those green building features in AQ-PDF-1 that have targets that can be quantified in the analysis. Physical and operational Project characteristics for which sufficient data are available to quantify the reductions from building energy and resource consumption have also been included in the quantitative analysis, and include the Project's VMT reduction from its infill location near job centers and transit options, installation of energy-efficient appliances, water reduction features, and the elimination of GHG emissions that would otherwise be emitted by natural gas fireplaces in the residential units by not including the use of residential natural gas fireplaces as per AQ-PDF-1. Since the default CalEEMod factors do not include reductions from these features, it is appropriate to include these reductions in the model calculations.

The Project's maximum annual net GHG emissions resulting from motor vehicles, energy (i.e., electricity, natural gas), water conveyance, and waste sources were calculated based on the expected opening year in 2023. The maximum opening year GHG emissions from operation of the Project are shown in **Table IV.F-5, *Estimated Combined Amortized Construction and Operational NIERM Scenario and Project Scenario Opening Year GHG Emissions.***

**TABLE IV.F-5
ESTIMATED COMBINED AMORTIZED CONSTRUCTION AND OPERATIONAL NIERM AND PROJECT
SCENARIO OPENING YEAR GHG EMISSIONS**

Emissions Sources	Project CO ₂ e (Metric Tons per Year) ^a		
	Project NIERM Scenario - Without GHG Reduction Characteristics, Features, and Measures ^b	Proposed Project ^b	Percent Reduction
Project Opening Year			
Electricity ^c	1,898	1,875	1%
Natural Gas ^c	582	582	-
Mobile Sources	9,083	5,908	35%
Solid Waste	226	226	-
Water and Wastewater	444	254	43%
Area ^d	206	14	93%
Emergency Generator	19	19	-
CO ₂ Sequestration ^e	-	(5)	-
Operational Subtotal	12,458	8,873	29%
Existing Site (see Table IV.F-3)	(446)	(446)	-
Total Net Operational	12,012	8,427	30%
Amortized Construction Emissions	228	228	-
Total Net Emissions	12,239	8,654	29%

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix G of this Draft EIR.

^b CO₂e emissions are calculated using the global warming potential values from the Intergovernmental Panel on Climate Change Fourth Assessment Report.

^c The Project's building energy GHG emissions is intended to reflect a conservative analysis. Emissions from electricity generation only take into account the carbon intensity at buildout year, but does not take into account decreasing carbon intensity required by the State's Renewables Portfolio Standard for future years. It is recognized that the Renewables Portfolio Standard requires utilities, including LADWP, to supply 60 percent renewable energy by 2030 and to plan for 100 percent renewable energy by 2045 (SB 100). Furthermore, the Project would achieve LEED Gold; however, the analysis conservatively does not account for optional points in the LEED energy and atmosphere category for exceeding the Title 24 building energy standards. Should the Project obtain optional points in the LEED energy and atmosphere category, its building energy demand and associated GHG emissions would be reduced below the reported GHG emissions shown in this table.

^d Area sources include fireplaces and landscaping equipment for the Project NIERM Scenario. Proposed Project Scenario area source emissions do not include fireplace emissions in accordance with AQ-PDF-1.

^e Carbon sequestration from trees and vegetation is modeled within CalEEMod based on the Project's increase in the net new number of trees that would be planted and the net increase in vegetated landscaping relative to the existing Project Site. The Project would include the addition of 137 canopy trees and just over approximately 0.2 acres of planting area of native plants, shrubs, perennials, and ground-cover at the Project Site, which would sequester CO₂ from the growing of these new trees, native plants, shrubs, perennials, and ground-cover.

SOURCE: ESA, 2019.

As discussed above, GHG emissions associated with the existing uses at the Project Site were estimated and reported in Table I.V.E-3, *Existing Project Site Greenhouse Gas Emissions*. These emissions were subtracted from the operational GHG emissions reported in Table I.V.E-9 from the Project Scenario and the NIERM Scenario to account for the removal of existing emission sources.

It is important to note that the total net Proposed Project Scenario emissions in Table IV.F-5 do not reflect the fact that Project operational-related GHG emissions would decline in future years as emissions reductions from the State's Cap-and-Trade program are fully realized. Emissions related to electricity would also decline as utility providers, including LADWP, meet their RPS obligations to provide electricity from 33 percent renewable electricity sources by 2020. Future regulations would also be implemented to increase the percentage of electricity provided from renewable electricity sources to 50 percent by 2030 consistent with and would not conflict with SB 350, which would achieve additional reductions in emissions from electricity demand. Emissions from mobile sources would also decline in future years as older vehicles are replaced with newer vehicles, resulting in a greater percentage of the vehicle fleet meeting more stringent combustion emissions standards, such as the model year 2017-2025 Pavley Phase II standards.

When considering only the Project's net emissions, which exclude the existing Project Site emissions that would no longer occur with Project implementation, Table IV.F-5 shows that the Project's total net operational emissions of 8,654 MTCO₂e would be approximately 29 percent below the emissions that would be generated by the Project under the NIERM Scenario, which does not include implementation of GHG reduction characteristics, features, and measures. The approximately 29 percent based on net operational emissions reduction in emissions is due to the following primary factors:

- **Reduction in vehicle trips and VMT associated with Project Site location and Project design.** As discussed in subsection IV.F.3.d), *Analysis of Project Impacts – Comparison of Project Characteristics to Applicable Regional Trip and VMT Reduction Goals, Actions, and Recommendations*, the Project Site is an infill site located near transit in a highly walkable environment. The Project is designed as a mixed-use development that would increase the existing density in a High Quality Transit Area. As discussed in subsection IV.F.3.c), *Project Characteristics*, the Project's location and its design features and characteristics account for an approximately 35 percent reduction in Project VMT and associated emissions, and an approximately 26 percent reduction in total Project emissions.
- **Green Building Features, AQ-PDF-1:**
 - Accounts for an approximately 1 percent increase in optimization of energy performance and reduction in building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent., and an approximately 0.2 percent reduction in total Project GHG emissions.

- Accounts for an approximately 43 percent reduction in indoor and outdoor potable water use, and an approximately 2 percent reduction in total Project GHG emissions.
- Accounts for an approximately 93 percent decrease in area source GHG emissions as the residential units within the Project will not include the use of natural gas-fueled fireplaces, and an approximately 2 percent reduction in total Project GHG emissions.

As discussed above, the 2017 Updated Climate Change Scoping Plan proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, 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 2017 Updated Climate Change Scoping Plan presents the strategies and the level of reductions necessary to achieve the 2030 target of 40 percent below 1990 levels; as stated above, CARB's projected Statewide 2030 emissions target takes into account 2020 GHG reduction policies and programs.¹³⁰ The 2017 Updated Climate Change Scoping Plan recommends project-level GHG thresholds, of which the primary threshold is consistency with a geographically-specific GHG reduction plan.¹³¹ If there is no geographically-specific GHG reduction plan, comprehensive incorporation of design features and GHG reduction measures is suggested. As the quantification of the Project Scenario GHG emissions and the comparison of that Scenario's emissions to the Project NIERM Scenario emissions show, the Project achieves substantial reductions of GHG emissions that are aligned with the GHG reduction measures identified in the 2017 Updated Climate Change Scoping Plan. As stated above, this discussion is presented to assist in assessing the Project's consistency with plans and policies adopted for the purpose of reducing GHG emissions, which the City has determined to use as the indicator of significance under the CEQA Guidelines Appendix G Thresholds. As is discussed in detail below, the Project would be consistent with geographically-specific GHG reduction plans discussed below, as well as incorporates many design features for the purpose of GHG reduction. Furthermore, as required in GHG-PDF-1, the Project would achieve no net increase in annual GHG emissions. As a result, Project generated GHG emissions would have a less than significant impact

Discussion of the Project's no net increase in annual GHG emissions for future years through incorporation of GHG-PDF-1 is provided in subsection 4, *Jobs and Economic Improvement Through Environmental Leadership*, below.

Threshold b) *Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs? Less than Significant Impact.*

¹³⁰ California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 2018.

¹³¹ California Air Resources Board, California's 2017 Climate Change Scoping Plan, pp. 101-103, November 2017.

The analyses below demonstrate that the Project is consistent with and would not conflict with the applicable GHG emission reduction policies and measures included within SCAGs 2016-2040 RTP/SCS, CARB's 2017 updated Climate Change Scoping Plan, and the City's Green New Deal, and Green Building Code. As a result, the Project would not generate direct or indirect GHG emissions that would have a significant impact on the environment, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs, and the Project's greenhouse gas emission impacts would be less than significant and no mitigation is required.

(1) Project Features that Reduce GHG Emissions

The Project's location and its land use characteristics are analyzed below to demonstrate that the Project, when developed at the Project Site, would result in reduced vehicle trips, VMT, and associated transportation-related GHG emissions, as well as air pollutant emissions, as compared to the Statewide and Air Basin averages. The Project's incorporation of these features further demonstrates its consistency with the RTP/SCS by reducing vehicle trips, VMT and associated air pollutant emissions, as is also discussed below.

CAPCOA has provided guidance on mitigating or reducing emissions from land use development projects within its guidance document entitled *Quantifying Greenhouse Gas Mitigation Measures*. The CAPCOA guidance provides emission reduction values for recommended GHG reduction strategies, including land use strategies.¹³²

As discussed in the CAPCOA guidance, the Urban location setting is shown to reduce VMT per capita as compared to the Statewide average from 48 percent in central Berkeley to 82 percent in the North Beach area of San Francisco.¹³³ The Project Site shares virtually all of the characteristics listed by CAPCOA for the Urban location setting, including a location close to the central business district, an area rich in jobs, high density features, and readily available high quality transit options.¹³⁴ The land use characteristics of the Project listed below are consistent with those shown in the CAPCOA guidance document to reduce vehicle trips to and from the Project Site as compared to the Statewide and Air Basin averages. They would, therefore, also result in reductions in VMT and associated air pollutant and GHG emissions. The Project's expected reduction in VMT from these land use characteristics has been estimated in accordance with the CAPCOA methodologies. Detailed VMT reduction calculations using the CAPCOA methodologies are provided in Appendix G-1 of this Draft EIR. As shown by these

¹³² California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, 2010, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹³³ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, 2010, 59, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed August 2018.

¹³⁴ Ibid.

calculations, the Project would achieve an approximately 36 percent reduction in VMT resulting from the land use characteristics calculating using the CAPCOA guidance as discussed below (calculation is provided in Appendix G of this Draft EIR).¹³⁵ However, for purposes of comparison, it should be noted that the GHG emissions estimate for the Project's mobile sources used a VMT reduction, drawn from the Project's Transportation Study, of approximately 35 percent (an approximately 26 percent reduction in annual GHG emissions, accounting for weekend adjustments per CalEEMod).¹³⁶

- Increased Density:** Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies such as enhanced transit services. For example, mass transit providers would not be encouraged to locate many services in areas with low density where ridership would presumably be low. This characteristic corresponds to CAPCOA guidance strategy LUT-1.¹³⁷ According to CAPCOA, the reduction in VMT from this characteristic applies to Urban and Suburban location settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an Urban¹³⁸ location and is a mixed-use development; therefore, this characteristic applies to the Project. The Project would increase the Project Site density to approximately 827 dwelling units per acre (794 dwelling units on 0.96 acres) (refer to Section IV.K, *Population and Housing*, of this Draft EIR). Based on the calculation methodologies in the CAPCOA guidance, the estimated Project VMT reduction for this measure by itself is approximately 0.6 percent.
- Location Efficiency:** Location efficiency describes the location of a project relative to the type of urban landscape such as an Urban area, Compact Infill, or Suburban Center. In general, as stated in the CAPCOA guidance, compared to the Statewide

¹³⁵ The estimated 36 percent using the CAPCOA guidance methodology is not a linear summation of the individual percent reductions from each measure. In order to avoid double counting, each measure's percent reduction is applied successively. In other words, each measure removes a certain percentage of VMT from the remaining total. The next measure applies the percent reduction to the remaining VMT, and so on.

¹³⁶ The Mobility Group, 1045 S Olive Project – Transportation Study, May 2019. This document is provided at the end of Appendix G of this Draft EIR.

¹³⁷ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155-158, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹³⁸ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 59-60. The Project area meets the characteristics for an urban setting with respect to typical building heights of 6 stories or much higher, grid street pattern, minimal setbacks, constrained parking, high parking prices, and high quality rail service (i.e., Metro Red Line). The Project meets the characteristics for a compact infill setting with respect to location relative to regional cores (5 to 15 miles) and jobs/housing balance (the Hollywood Community Plan Draft EIR, Section 4.2, Population, Housing, and Employment, Table 4.2-2 shows that existing 2005 conditions and various projections to 2030 have a jobs/housing ratio ranging from 0.97 to 1.13). While the Project meets some of the characteristics for the urban setting and some of the characteristics for the compact infill setting, for the purposes of this analysis, the Project is assumed to be located in a compact infill setting. This is a highly conservative approach since the compact infill setting has lower VMT reduction caps than the urban setting. Thus, it is possible that the Project could achieve higher levels of VMT reduction than is indicated in this assessment since the Project area meets some of the characteristics of the urban setting.

average, a project could realize VMT reductions up to 65 percent in an Urban setting, up to 30 percent in a Compact Infill setting, or up to 10 percent in a Suburban Center for land use/location strategies.¹³⁹ This characteristic corresponds to CAPCOA guidance strategy LUT-2.¹⁴⁰ According to CAPCOA, the reduction in VMT from this characteristic applies to Urban and Suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an Urban location within an identified TPA and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include the geographic location of a project within the region. The Project Site represents an Urban location within the Downtown community of Los Angeles. The Project Site is served by existing high quality public transportation located within a quarter-mile. The Project Site is within an active urban center with many existing off-site commercial and residential buildings. The location efficiency of the Project Site would result in synergistic benefits that would reduce vehicle trips and VMT compared to the Statewide and Air Basin averages and would result in corresponding reductions in transportation-related emissions. According to the CAPCOA guidance, this measure does not specifically result in VMT reductions – this measure provides general limits as to the amount of VMT that could be reduced for urban, compact infill, and suburban areas.

- **Increased Land Use Diversity and Mixed-Uses:** Locating different types of land uses near one another can decrease VMT since trips between land use types are shorter and can be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This characteristic corresponds to CAPCOA guidance strategy LUT-3.¹⁴¹ According to CAPCOA, the reduction in VMT from this characteristic applies to Urban and Suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The Project is located in an Urban location within an identified Transit Priority Area and is mixed-use; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors

¹³⁹ CalEEMod, by default, assumes that trip distances in the South Coast Air Basin are slightly longer than the Statewide average. This is due to the fact that commute patterns in the South Coast Air Basin involve a substantial portion of the population commuting relatively far distances, which is documented in the Southern California Association of Governments 2016-2040 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). The RTP/SCS shows that, even under future Plan conditions, upwards of 52 percent of all work trips would be 10 miles or longer (SCAG, Performance Measures Appendix, p. 13, 2016). The RTP/SCS does not specify the current percentage of work trips greater than 10 miles in the region, but it can be assumed that the percentage is currently greater than 52 percent since the goal of the RTP/SCS is to reduce overall per capita VMT in the region. It is thus reasonable to assume that the trip distances in South Coast Air Basin are analogous to the statewide average given that the default model trip distances in the South Coast Air Basin are slightly longer but still generally similar to the statewide average. Therefore, projects could achieve similar levels of VMT reduction (65 percent in an urban area, 30 percent in a compact infill area, or 10 percent for a suburban center) compared to the South Coast Air Basin average.

¹⁴⁰ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, 2010, 159-161, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹⁴¹ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, 2010, 162-166, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

that contribute to VMT reductions under this characteristic include the percentage of each land use type in the project. The Project would co-locate complementary restaurant, retail, and residential land uses, which would be in close to proximity to existing off-site commercial and residential uses and located within a quarter-mile of off-site commercial and residential uses. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions. While the Project is a mixed-use project, no VMT reduction was calculated using the CAPCOA guidance for this measure in order to provide a conservative assessment.

- Increased Destination Accessibility:** This characteristic corresponds to CAPCOA guidance strategy LUT-4.¹⁴² According to CAPCOA, the reduction in VMT from this characteristic applies to Urban and Suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an Urban location within an identified Transit Priority Area and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include the distance to downtown or major job center. The Project would be located in an area that offers access to multiple other nearby destinations including restaurant, bar, office, retail, entertainment, movie theater, the Convention Center, and residential uses. The Project Site is also located near other job centers in the region and within Downtown Los Angeles. Ready access to multiple destinations in close proximity to the Project Site would reduce vehicle trips and VMT compared to the Statewide and Air Basin averages, and encourage walking and non-automotive forms of transportation, and result in corresponding reductions in transportation-related emissions. Based on the calculation methodologies in the CAPCOA guidance, the estimated Project VMT reduction for this measure by itself is approximately 10.4 percent.
- Increased Transit Accessibility:** Locating a project with high density near transit facilitates the use of transit by people traveling to or from the Project Site. This characteristic corresponds to CAPCOA guidance strategy LUT-5.¹⁴³ According to CAPCOA, the reduction in VMT from this characteristic applies to Urban and Suburban settings (also potentially for rural settings adjacent to a commuter rail station with convenient access to a major employment center) for residential, retail, office, industrial, and mixed-use projects. The Project is located in an Urban location within an identified Transit Priority Area and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include the distance to transit stations near the project. The Project would be located within a quarter-mile of public transportation, including the existing Metro Pico light rail station, Metro bus routes (e.g., local 2, 4, 10, 14, 28, 30, 33, 37, 40, 45, 48, 55, 66, 70, 71, 76, 78, 79, 81, 90,

¹⁴² California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 167-170, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

¹⁴³ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171-175, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

91, 94, and 96; limited 302, 330, 335, 355, and 378; express 442 and 460; rapid 728, 733, 745, 770, and 794; and Metro Silver), LADOT's Downtown Area Short Hop (DASH), LADOT Commuter Express, Santa Monica Big Blue Bus, Foothill Transit, Orange County Transportation Authority (OCTA), and Torrance Transit. The Project would provide access to on-site uses from existing pedestrian pathways. The Project would also provide hundreds of on-site bicycle parking spaces to encourage bicycle travel by residents and visitors. The increased transit accessibility would reduce vehicle trips and VMT versus the Statewide and Air Basin averages, encourage walking and non-automotive forms of transportation, and would result in corresponding reductions in transportation-related emissions. Based on the calculation methodologies in the CAPCOA guidance, the estimated Project VMT reduction for this measure by itself is approximately 15.2 percent.

- Improve Design of Development:** Improved street network characteristics within a neighborhood enhances walkability and connectivity. Characteristics include street accessibility usually measured in terms of number of intersections (e.g., 4-way intersections) per square mile. This measure corresponds to CAPCOA guidance measure LUT-9.¹⁴⁴ According to CAPCOA, the reduction in VMT from this measure applies to Urban and Suburban settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an Urban infill location and is mixed-use; therefore, this measure applies to the Project. The Project would be located in a highly street-accessible area with over 100 four-way intersections within a 1-mile radius of the Project Site, which exceeds the standard intersection density of 36 assumed in the CAPCOA guidance. The increased intersection density would reduce vehicle trips and VMT versus the Statewide and Air Basin averages, encourage walking and non-automotive forms of transportation, and would result in corresponding reductions in transportation-related emissions. Based on the calculation methodologies in the CAPCOA guidance, the estimated Project VMT reduction for this measure by itself is approximately 13.0 percent.
- Provide Pedestrian Network Improvements:** Providing pedestrian access that minimizes barriers and links the Project Site with existing or planned external streets encourages people to walk instead of drive. This characteristic corresponds to CAPCOA guidance strategy SDT-1.¹⁴⁵ According to CAPCOA, the reduction in VMT from this characteristic applies to Urban, Suburban, and Rural settings for residential, retail, office, industrial, and mixed-use projects. The Project is located in an Urban location within an identified Transit Priority Area and is a mixed-use development; therefore, this characteristic applies to the Project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this characteristic include pedestrian access connectivity within the project and to/from off-site destinations. As discussed in Chapter II, *Project Description*, the Project would improve the street-level pedestrian environment and connectivity to the surrounding Downtown area, with pedestrian access to commercial/restaurant uses provided at a publicly accessible

¹⁴⁴ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, 2010, pages 182-185.

¹⁴⁵ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 186-189, <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>. Accessed January 2018.

Plaza at the corner of Olive Street and 11th Street. The Plaza's streetscaping, landscaping, and public art, as well as new street trees along the Project's sidewalks, would be visible along the Project Site's edges and would contribute positively to the appearance of the Project Site, which would create an attractive and inviting walkable environment. In summary, the Project would provide an internal pedestrian network for Project visitors and residents that links to the existing off-site pedestrian network, including existing off-site sidewalks, and would therefore result in a small reduction in VMT and associated transportation-related emissions. Based on the calculation methodologies in the CAPCOA guidance, the estimated Project VMT reduction for this measure by itself is approximately 2.0 percent.

As described above, by locating its residential uses within an area that has existing high quality public transit (with access to existing regional bus and rail service), employment opportunities, restaurants and entertainment, all within walking distance, and by including features that support and encourage pedestrian activity and other non-vehicular transportation and increased transit use in the Downtown Los Angeles area, the Project would reduce vehicle trips and VMT, and resulting air pollution and GHG emissions. Therefore, as discussed below, by developing the Project within an established land use pattern that promotes shorter automotive trips and provides other convenient modes of travel, the Project's characteristics developed at its location would be consistent with many of the objectives of SCAG's 2016-2040 RTP/SCS, CARB's 2017 Updated Climate Change Scoping Plan, and the City of Los Angeles General Plan Framework Element, Green New Deal, and Green Building Code. Please refer to the following subsections where the project's consistency with these plans is discussed in specific terms.

(2) Comparison of Project Characteristics to Applicable Regional Trip and VMT Reduction Goals, Actions, and Recommendations

The significance of the Project's GHG emissions is first evaluated based on whether its emissions would be generated in connection with a development whose location and design are consistent with and would not conflict with relevant regional goals, actions, and recommendations intended to encourage development that reduces trips and VMTs. As discussed above, pursuant to SB 375, CARB has adopted GHG reduction targets for the passenger vehicle and light-duty truck transportation sector in the SCAG region for 2020 and 2035. The purpose of the SCAG 2016 RTP/SCS is to achieve these regional per capita GHG reduction targets.¹⁴⁶ SCAG's Program EIR for the 2016 RTP/SCS, released in December 2015, states that "[e]ach [Metropolitan Planning Organization] is required to prepare an SCS in conjunction to [sic] with the RTP in order to meet these GHG emissions reduction targets by aligning transportation, land use, and housing strategies with respect to [Senate Bill] 375."¹⁴⁷ SCAG's 2016 RTP/SCS plans for regional

¹⁴⁶ Southern California Association of Governments, The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, page 166.

¹⁴⁷ Southern California Association of Governments, Draft Program Environmental Impact Report – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015) 3.8-37.

population growth using smart land use strategies, with one primary goal being the reduction of per capita VMT. As part of the 2016 RTP/SCS, “transportation network improvements would be included, and more compact, infill, walkable and mixed-use development strategies to accommodate new region’s growth would be encouraged to accommodate increases in population, households, employment, and travel demand.”¹⁴⁸ Moreover, the 2016 RTP/SCS states that while “[p]opulation and job growth would induce land use change (development projects) and increase VMT, and would result in direct and indirect GHG emissions,” the 2016 RTP/SCS “supports sustainable growth through a more compact, infill, and walkable development pattern.”¹⁴⁹ As part of the 2016 RTP/SCS, a reduction in VMT within the region is a key component to achieving the 2020 and 2035 GHG emission reduction targets established by CARB.

The Project would be consistent with and would not conflict with the 2016 RTP/SCS’ alignment of transportation, land use, and housing strategies, as the Project would accommodate anticipated increases in population, households, employment, and travel demand by implementing smart land use strategies. As discussed previously, the Project Site is located at an infill site in Downtown Los Angeles location close to jobs, shopping and entertainment uses and in close proximity to existing and future high quality public transit stops, where the Project’s increased intensity, mixed-use development would result in reduced trips and VMT, as compared to a project of similar size and land uses at a location without close and walkable access to off-site destinations and public transit stops.

Table IV.F-6, *Comparison of Project Characteristics to Applicable SCAG 2016 RTP/SCS Actions and Strategies*, contains a list of GHG-reducing actions and strategies from the 2016 RTP/SCS that are potentially applicable to the Project. The analysis describes the consistency of the Project with these strategies. As shown below, the Project would incorporate PDFs and characteristics to reduce vehicle travel consistent with and would not conflict with the 2016 RTP/SCS. As a result, the Project would be consistent with and would not conflict with applicable 2016 RTP/SCS actions strategies to reduce GHG emissions.

¹⁴⁸ Southern California Association of Governments, Draft Program Environmental Impact Report – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015) 3.8-35.

¹⁴⁹ Southern California Association of Governments, Draft Program Environmental Impact Report – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015) 3.8-36.

TABLE IV.F-6
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE SCAG 2016-2040 RTP/SCS
ACTIONS AND STRATEGIES

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
Land Use Actions and Strategies		
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and Electric (and other alternative fuel) Vehicle Supply Equipment in public parking lots.	Local Jurisdictions, Council of Governments (COGs), SCAG, Council Transportation Committees (CTCs)	While this action applies to local jurisdictions, COGs, SCAG and CTCs, and the general encouragement of alternative-fueled vehicles is beyond the direct control or influence of the Project, the Project would not adversely impact or conflict with the City's or SCAG's ability to encourage the use of alternative-fueled vehicles through various policies and programs. Specifically, the Project would support a land use pattern that provides increased opportunity for the use of alternative transportation modes. Additionally, as described in AQ-PDF-1, the Project would encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designated for on-site parking for electric vehicles.
Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.	Local Jurisdictions, SCAG	While this action applies to local jurisdictions and SCAG, and is not applicable to individual projects, the Project would facilitate pedestrian and bicycle movements by providing convenient access to and from on-site uses from 11 th Street, Olive Street and the Plaza and from there to multiple transit options. The Plaza's streetscaping, landscaping, and public art would be visible along the Project edges and contribute positively to the appearance of the Project Site, which would create an attractive and inviting walkable environment. The Project would locate residential and commercial/restaurant uses on an infill Project Site located within a highly-walkable area of downtown Los Angeles that has public transit (with access to existing regional and local bus service and the Metro Blue/Expo Line Pico Station), and employment opportunities, restaurants and entertainment all within walking or bicycling distance. The Project would also provide parking for hundreds of bicycles on-site to encourage utilization of alternative modes of transportation area.
Collaborate with the region's public health professionals to enhance how SCAG addresses public health issues in its regional planning, programming, and project development activities.	SCAG, State, Local Jurisdictions	While this action applies to local jurisdictions, SCAG, and the State, and is not applicable to individual projects, the Project would not impair the City's, SCAG's, or the State's ability to collaborate with the region's public health professionals regarding the integration of public health issues in regional planning. The Project incorporates measures to reduce air pollutant emissions, minimize hazards, and ensure water quality. As an example, the Project incorporates AQ-PDF-2 to reduce construction emissions. The Project also incorporates AQ-PDF-1 requiring implementation of green building features and encouraging walking and bicycling and other non-automotive forms of travel to address public health issues. The Project's design includes 100,652 square feet of open space and

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
		<p>would include a number of amenities for Project residents and visitors. The top of the 8th and 10th Floor Podium Terraces would contain residential amenities such as lounge areas and event areas. In addition, the Project has easy accessibility to neighborhood parks such as: Grand Hope Park; Pershing Square; Spring Street Park; San Julian Park; 6th and Gladys Street Park; and Alvarado Terrace Park (See IV.L.5, <i>Parks and Recreation</i>, of this Draft EIR for more information). The Project design also provides residents and guests access to comprehensive transit and alternative methods to commute to work rather than relying on passenger vehicles as, the Project Site is located within a within a half-mile of the Project Site, including the Metro Blue/Expo Line Pico Station, where the Blue line provides convenient access to locations within Downtown Los Angeles, Long Beach and Compton, and where the Expo line provides convenient access to locations in Los Angeles, Culver City and Santa Monica. Both provide direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region.</p>
<p>Update local zoning codes, General Plans, and other regulatory policies to promote a more balanced mix of residential, commercial, industrial, recreational and institutional uses located to provide options and to contribute to the resiliency and vitality of neighborhoods and districts.</p>	<p>Local Jurisdictions</p>	<p>While this action applies to local jurisdictions, and is not applicable to individual projects, the Project would support this action/strategy by creating a mixed-use infill development comprising complementary uses that offer employment and other community-serving opportunities. The Project supports the development of complete communities by co-locating complementary commercial/restaurant and residential land uses on an infill Project Site that is in close proximity to existing off-site commercial and residential uses, being located within a quarter-mile of off-site commercial and residential uses, and located within an identified Transit Priority Area in a highly walkable area served by frequent and comprehensive transit within a half-mile of the Project Site.</p>
<p>Support projects, programs, policies and regulations that encourage the development of complete communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance.</p>	<p>Local Jurisdictions, SCAG</p>	<p>While this action applies to local jurisdictions and SCAG, and is not applicable to individual projects, the Project supports the development of complete communities by co-locating complementary commercial/restaurant and residential land uses in close proximity to existing off-site commercial and residential uses on an infill Project Site that is, being located within a quarter-mile of off-site commercial and residential uses, and being located within an identified Transit Priority Area in a highly walkable area served by frequent and comprehensive transit within a half-mile of the Project Site. The increases in land use density and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.</p>

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
Pursue joint development opportunities to encourage the development of housing and-mixed use projects around existing and planned rail stations or along high-frequency bus corridors, in transit-oriented development areas, and in neighborhood-serving commercial areas.	Local Jurisdictions, CTCs	While this action applies to local jurisdictions and CTCs, and is not applicable to individual projects, the Project is a mixed use development on an infill site located within an identified Transit Priority Area and within a half-mile of the Metro Blue/Expo Line Pico Station, where the Blue line provides convenient access to locations within Downtown Los Angeles, Long Beach and Compton, and where the Expo line provides convenient access to locations in Los Angeles, Culver City and Santa Monica. Both provide direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region. In addition, the Project Site is served by multiple bus and shuttle lines; the regional freeway system; bicycle lanes; and an established pedestrian grid. Additionally, the Project would co-locate its complementary commercial/restaurant and residential land uses, which are in close proximity to existing off-site commercial and residential uses.
Consider developing healthy community or active design guidelines that promote physical activity and improved health.	Local Jurisdictions	While this action applies to local jurisdictions, and is not applicable to individual projects, the Project has been designed to promote physical activity and improved health because it would facilitate pedestrian and bicycle activity through and around the Project Site to the surrounding commercial and recreational areas. The Project would locate its residential, retail, and restaurant uses on an infill Project Site located within an identified HQTa and a TPA Area and within an area that has existing employment opportunities, restaurants and entertainment, all within walking, bicycling and easy transit distance. As such, the Project would promote physical activity and improved health by providing options for walking and bicycling, as well as avoiding passenger vehicle commuting.
Create incentives for local jurisdictions and agencies that support land use policies and housing options that achieve the goals of SB 375.	State, SCAG	While this action applies to the State and SCAG, and is not applicable to the Project, the Project would be consistent with and would not conflict with the goals of SB 375, including the goal to reduce VMT and the corresponding emission of GHGs through infill development. The Project is a dense mixed use development located on an urban infill Project Site within an identified HQTa and a TPA. It co-locates its complementary commercial/restaurant and residential land uses, which are in close proximity to existing off-site commercial and residential uses. The Project is also located in a highly walkable area served by frequent and comprehensive transit within a half-mile of the Project Site. The increases in land use intensity and diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
Transportation Network Actions and Strategies		
Prioritize transportation investments to support compact infill development that includes a mix of land uses, housing options, and open/park space, where appropriate, to maximize the benefits for existing communities, especially vulnerable populations, and to minimize any negative impacts.	SCAG, CTCs, Local Jurisdictions	While this action applies to local jurisdictions, SCAG and CTCs, and is not applicable to individual projects, the Project is a dense, compact mixed use development on a Project Site in an infill location close to jobs, off-site housing, shopping and entertainment uses and in close proximity to existing public transit stops, the development of which with the Project, would result in reduced VMT, as compared to a project of similar size and land uses at a location without close and walkable access to off-site destinations and public transit stops. The proximity of the Project to alternative transportation modes, including regional rail and bus lines, would support the region's transportation investment and the sustainability of the regional transportation system.
Explore and implement innovative strategies and projects that enhance mobility and air quality, including those that increase the walkability of communities and accessibility to transit via non-auto modes, including walking, bicycling, and neighborhood electric vehicles (NEVs) or other alternative fueled vehicles.	SCAG, CTCs, Local Jurisdictions	While this whole action applies to local jurisdictions, SCAG and CTCs, and is not applicable to individual projects, the Project would facilitate pedestrian and bicycle travel through and around the Project Site. The Project would provide hundreds of bicycle parking spaces. It would also connect to the surrounding commercial and recreational areas. The Project would locate residential and commercial/restaurant uses within an area that has multiple existing public transit options, and employment opportunities, restaurants and entertainment all within walking and bicycling distance. Further, the Project would encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designed for on-site parking for electric vehicles.
Collaborate with local jurisdictions to plan and develop residential and employment development around current and planned transit stations and neighborhood commercial centers.	SCAG, CTCs, Local Jurisdictions	While this action applies to local jurisdictions, SCAG and CTCs, and is not applicable to individual projects, the Project's mixed use development would intensify development in an area directly served by the Metro/Blue Line Pico Station, where the Blue line provides convenient access to locations within Downtown Los Angeles, Long Beach and Compton, and where the Expo line provides convenient access to locations in Los Angeles, Culver City and Santa Monica. Both provide direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region. Furthermore, the Project would provide its high-density residential and commercial/restaurant uses in an area with pedestrian access to a large range of existing entertainment and commercial uses opportunities.
Collaborate with local jurisdictions to provide a network of local community circulators that serve new transit oriented development (TOD), high quality transit	SCAG, CTCs, Local Jurisdictions	While this action applies to local jurisdictions, SCAG and CTCs, and is not applicable to individual projects, the Project is a mixed use development on an infill Project Site located within an identified TPA and an HQT, and has many TOD features, such as co-locating its complementary commercial/restaurant and residential uses in close to proximity to existing off-site

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
areas (HQTAs), and neighborhood commercial centers providing an incentive for residents and employees to make trips on transit.		commercial and residential uses, being located within a quarter-mile of off-site commercial and residential uses, and being located in a highly walkable area served by frequent and comprehensive transit within a half-mile of the Project Site. The Project's increases in land use density and its mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions. The Project would improve pedestrian connectivity to and the pedestrian experience in the surrounding Downtown Los Angeles area by providing pedestrian access to commercial/restaurant by providing convenient access to and from on-site uses from 11 th Street, Olive Street and the Plaza area, and from there to multiple existing transit options. The Plaza's streetscaping, landscaping, and public art would be visible along the Project Site's edges and would contribute positively to the appearance of the Project Site, which would create an attractive and inviting walkable environment, enhance the pedestrian experience, and encourage walking and utilization of nearby public transit options.
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other ZEV options.	CTCs, Local Jurisdictions	While this action applies to local jurisdictions and CTCs, and is not applicable to individual projects, the Project is proposed on an infill location and would incorporate pedestrian pathways and a Plaza that connect to the existing sidewalk network. The Project would also encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designed for on-site parking for electric vehicles. The Project would provide bicycle parking spaces and facilities. In addition, the Project's Urban location and its land use characteristics, including its Location Efficiency, Increased Land Use Diversity and Mixed-Uses, Increased Transit Accessibility, Improved Design of Development, and Pedestrian Network Improvements, have been shown by CAPCOA to reduce VMT. The Project's location and its land use characteristics would increase walkability and encourage walking, biking, and increased use of transit.
Encourage transit fare discounts and local vendor product and service discounts for residents and employees of TOD/HQTAs or for a jurisdiction's local residents in general who have fare media.	Local Jurisdictions	While this action applies to local jurisdictions and CTCs, and is not applicable to individual projects, the Project's land use characteristics, including its Increased Transit Accessibility, would encourage increased use of transit. Additionally, the Project's TDM Program (TRAF-MM-2) would include a variety of measures that would promote transit use by residents and employees through incentives, including transit fare discounts. Refer to Section IV.M, <i>Transportation and Traffic</i> of this Draft EIR, for information regarding the TDM Program.
Continue to support the California Interregional Blueprint as a plan that links Statewide transportation goals	SCAG	While this action applies to SCAG, and is not applicable to individual projects, the Project would support transportation goals via development of a mixed-use commercial/restaurant and residential development on an urban infill Project Site

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
and regional transportation and land use goals to produce a unified transportation strategy.		located in close proximity to existing off-site commercial and residential uses and comprehensive transit. In addition, the Project is located within an identified TPA and in a HQTa, which is defined by the 2016 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-served transit stop or transit corridor with 15-minute or less service frequency during peak commute hours.
Transportation Demand Management (TDM) Actions and Strategies		
Examine major projects and strategies that reduce congestion and emissions and optimize the productivity and overall performance of the transportation system.	SCAG	While this action applies to SCAG, and is not applicable to individual projects, the Project is proposed on an infill location and would incorporate pedestrian pathways and a Plaza that connect to the existing sidewalk network. The Project would also encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designated for on-site parking for electric vehicles. The Project would provide bicycle parking spaces and facilities. In addition, the Project's Urban location and its land use characteristics, including its Location Efficiency, Increased Land Use Diversity and Mixed-Uses, Increased Transit Accessibility, Improved Design of Development, and Pedestrian Network Improvements, have been shown by CAPCOA to reduce VMT.
Encourage the implementation of a Complete Streets policy that meets the needs of all users of the streets, roads and highways-including bicyclists, children, persons with disabilities, motorists, neighborhood electric vehicle (NEVs) users, movers of commercial goods, pedestrians, users of public transportation and seniors-for safe and convenient travel in a manner that is suitable to the suburban and urban contexts within the region.	Local Jurisdictions, COGs, SCAG, CTCs	While this action applies to local jurisdictions, COGs, SCAG and CTCs, and is not applicable to individual projects, the Project is proposed on an infill location and would incorporate pedestrian pathways that connect to the existing sidewalk network. The Project would also encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designated for on-site parking for electric vehicles. The Project would provide bicycle parking spaces and facilities.
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG, Local Jurisdictions	While this action applies to local jurisdictions and SCAG, and is not applicable to individual projects, the Project is proposed on an infill location, would incorporate pedestrian pathways that connect to the existing sidewalk network, and would provide bicycle parking spaces and facilities, which would encourage active transportation such as walking and biking. The Project would also encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
Develop infrastructure plans and educational programs to promote active transportation options and other alternative fueled vehicles, such as neighborhood electric vehicles (NEVs), and consider collaboration with local public health departments, walking/biking coalitions, and/or Safe Routes to School initiatives, which may already have components of such educational programs in place.	Local Jurisdictions	<p>which a minimum of 5 percent would be designated for on-site parking for electric vehicles.</p> <p>While this action applies to local jurisdictions, and is not applicable to individual projects, the Project is proposed on an infill location, would incorporate pedestrian pathways that connect to the existing sidewalk network, and would provide bicycle parking spaces and facilities, which would encourage active transportation such as walking and biking. The Project would also encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designated for on-site parking for electric vehicles.</p>
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	Local Jurisdictions, CTCs	<p>While this action applies to local jurisdictions and CTCs, and is not applicable to individual projects, due to the service-oriented nature of Project's commercial land uses (commercial/restaurant), telecommuting would not be feasible. However, the Project's residential units would provide occupants with appropriate connectivity within the dwelling units (e.g., wall-mounted telephone and internet connectivity ports) to provide residents with the option to obtain services that would allow for telecommuting from within their dwelling units. Thus, the Project would not impact or conflict with the City's ability to encourage telecommuting.</p>
Emphasize active transportation and alternative fueled vehicle projects as part of complying with the Complete Streets Act (AB 1358).	SCAG, Local Jurisdictions	<p>While this action applies to local jurisdictions and SCAG, and is not applicable to individual projects, the Project's residential and commercial development would be located in the urban downtown Los Angeles area, which would provide opportunities for bicycling and walking. The Project would include bicycle parking in compliance with LAMC requirements. Further, the Project would encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of a minimum of 5 percent would be designated for on-site parking for electric vehicles.</p>
Transportation System Management (TSM) Actions and Strategies		
Work with relevant state and local transportation authorities to increase the efficiency of the existing transportation system.	SCAG, Local Jurisdictions	<p>While this action applies to local jurisdictions and SCAG, and is not applicable to individual projects, the proximity of the Project development on the Project Site to alternative transportation modes, including regional rail and bus lines, would support the region's transportation investment and the sustainability of the regional transportation system.</p>

Actions and Strategies	Responsible Party(ies)	Applicable Project Characteristics
Clean Vehicle Technology Actions and Strategies		
Support subregional strategies to develop infrastructure and supportive land uses to accelerate fleet conversion to electric or other near zero-emission technologies. The activities committed in the two subregions (Western Riverside COG and South Bay Cities COG) are put forward as best practices that others can adopt in the future. (See Appendix: Vehicle Technology, for more information.)	SCAG, Local Jurisdictions	While this action applies to local jurisdictions and SCAG, as discussed above, while directing the use of alternative-fueled vehicles is beyond the direct control or influence of individual projects, the Project would not interfere with the City's or SCAG's ability to encourage the use of alternative-fueled vehicles through various policies and programs. Specifically, the Project would support a land use pattern that provides increased opportunities to use alternative transportation modes. Additionally, the Project would encourage the use of electric vehicles, as the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designated for on-site parking for electric vehicles.

SOURCE: ESA, June 2018

The VMT reductions achieved by the Project's Urban location and its characteristics and features that render it consistent with the 2016 RTP/SCS including, among others, those land use characteristics matching the CAPCOA land use characteristics discussed above, are supported by area-specific data in the *Health Atlas for the City of Los Angeles* (Health Atlas), published by the City in June 2013.¹⁵⁰ The Health Atlas is not a GHG emissions reduction plan. Nonetheless, while the primary focus of the Health Atlas is on factors that affect the health behaviors and health status of residents and workers, much of the data supporting the Health Atlas conclusions are relevant to GHG emissions reductions, as those emissions reductions involve similar issues related to land use patterns, urban design, and transportation systems. As explained below, data collected by the City in support of its Health Atlas demonstrate that developing the Project at the Project Site would substantially reduce mobile source GHG emissions relative to the Citywide and Statewide averages and that the Project would be consistent with and would not conflict with SCAG's regional planning efforts in the 2016 RTP/SCS to reduce VMT and associated emissions, including GHG emissions. The Health Atlas includes a number of findings related to land use mix and diversity, employment density, walkability, access to public transit, and other land use transportation findings that are organized by Community Plan area. Since the Project Site is located in the Central City Community Plan area, a summary and an analysis of the Health Atlas findings relative to the Central City Community Plan Area are provided below.

¹⁵⁰ City of Los Angeles, *Health Atlas for the City of Los Angeles*, (2013), <http://healthyplan.la/wordpress/wp-content/uploads/2013/10/Health-Atlas-for-the-City-of-Los-Angeles-July-2013-FINAL-SMALL.pdf>. Accessed June 2018.

- Land Use Mix and Land Use Diversity:** According to the Health Atlas, a “mix of land uses can increase walking and other physical activity” and “offer more destinations for non-automobile trips.”¹⁵¹ The Health Atlas evaluates land use diversity based on the presence of 19 types of uses or amenities, including supermarkets, convenience stores, banks, gyms, department stores, farmer’s markets, libraries, and parks, grouped into four categories: food retail, community-serving retail, services, civic and community facility. The Central City Community Plan Area scored relatively high out of the 35 Community Plan Areas, indicating that the area has a high number of different types of amenities available in the Community Plan Area (a score of 11, which is in the highest one-third of the scores). The data indicate that the Central City Community Plan Area has a high potential for walkability and offers a high number of destinations for non-motorized trips. As discussed above, these findings are substantiated by the CAPCOA guidance, *Quantifying Greenhouse Gas Mitigation Measures*. CAPCOA measure LUT-3 (Increase Diversity of Urban and Suburban Developments [Mixed Use]) states that “different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non-auto modes of transport.”¹⁵² The Health Atlas findings are also related to the goals of the SCAG 2016 RTP/SCS, which seeks improved access and mobility by placing “destinations closer together, thereby decreasing the time and cost of traveling between them.”¹⁵³ According to SCAG, giving people more transportation choices and providing greater opportunities for biking and walking reduces the number of people who drive alone and encourages people to use alternative modes of travel.¹⁵⁴ The high scores for the number of destinations available for non-motorized trips within the Central City Community Plan Area supports the expectation that projects located in the area would achieve substantial reductions in VMT and trips, and associated mobile source emissions relative to the Citywide average. Therefore, based on this City data and expert guidance from State and regional agencies, the Project would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency when compared to the Citywide and Statewide averages. Furthermore, the land use diversity scores for the Central City Community Plan Area in the Health Atlas show that the Project would be located in an area consistent with the regional SCAG 2016 RTP/SCS goals to improve mobility and access to diverse destinations, and to reduce vehicular demand and associated emissions.
- Employment Density:** The Health Atlas recognizes that “[h]igher levels of employment density, particularly retail job densities, are associated with more walking trips” as they “allow for more frequent and comprehensive transit service.”¹⁵⁵ In turn,

¹⁵¹ City of Los Angeles, Health Atlas for the City of Los Angeles, pages 86-87.

¹⁵² California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, page 162.

¹⁵³ Southern California Association of Governments, *The 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy*, page 16.

¹⁵⁴ Southern California Association of Governments, *The 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy*, page 14.

¹⁵⁵ City of Los Angeles, Health Atlas for the City of Los Angeles, page 90.

“[d]enser employment districts which are rich in transit service typically result in more walking and transit use ... and makes jobs more accessible to all residents.”¹⁵⁶ The Health Atlas evaluates employment density as the number of jobs per square mile. The Central City Community Plan Area has the highest employment density of the 35 Community Plan Areas in the City, with nearly 80,000 jobs per square mile. The Citywide average employee density is approximately 1,185 jobs per square mile.¹⁵⁷ The data indicates that the Central City Community Plan Area has a high potential for walkability and making use of frequent and comprehensive transit services, such as the Metro Red Line and connecting bus lines. as discussed above, these findings are substantiated by the CAPCOA guidance measure LUT-1 (Increase Density), which states that “[i]ncreased densities affect the distance people travel and provide greater options for the mode of travel they choose.”¹⁵⁸ Measure LUT-1 also states that increased densities “provides a foundation for implementation of many other strategies which would benefit from increased densities” such as “enhanced transit service.”¹⁵⁹ The Health Atlas findings are also related to the goals of the SCAG 2016 RTP/SCS, which seek improved mobility and access and implementation of land use strategies that encourage walking, biking, and transit use, resulting in reduced vehicular demand and associated pollutant emissions.¹⁶⁰ The high employment density of the Central City Community Plan Area supports the expectation that projects located in the area would have high levels of walkability and high potential for transit usage. As a result, the Project would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide and Statewide average. Therefore, based on City data and expert guidance from State and regional agencies, the Project’s location in an employment-dense area would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency when compared to the Citywide and Statewide averages. Furthermore, the employment density score for the Central City Community Plan Area in the Health Atlas shows that the Project would be located in an area consistent with the regional SCAG 2016 RTP/SCS goals to improve mobility and access to diverse destinations, and to reduce vehicular demand and associated emissions.

- **Walkability:** The land use mix and diversity and employment density findings indicate that the Central City Community Plan Area has a high potential for walkability. The Health Atlas also provides a direct quantitative analysis of the walkability of each Community Plan Area using a Walkability Index based on four components: land use mix, residential density, retail density, and intersection density. Higher scores represent more walkable areas. The Central City Community Plan Area has the

¹⁵⁶ City of Los Angeles, Health Atlas for the City of Los Angeles, page 90.

¹⁵⁷ City of Los Angeles, Health Atlas for the City of Los Angeles, page 102.

¹⁵⁸ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, page 155.

¹⁵⁹ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, page 155.

¹⁶⁰ Southern California Association of Governments, The 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy, pages 13-15.

highest Walkability Index of the 35 Community Plan Areas in the City. Furthermore, as discussed previously, the walkability score for the Project area, as quantified by WalkScore.com, is approximately 96 points¹⁶¹ out of a possible 100, compared to the Citywide score of 67 points. The data indicates that the Central City Community Plan Area is a highly walkable area. As discussed above, these findings are substantiated by the CAPCOA guidance measure LUT-9 (Improve Design of Development), which indicates that design elements that enhance walkability and connectivity, such as intersection density, reduce VMT and associated GHG emissions. The Health Atlas findings are also related to the goals of the SCAG RTP/SCS, which seek better “placemaking,” defined as “the process of developing options for locations where they can live and work that include a pleasant and convenient walking environment that reduces their reliance on their car.”¹⁶² The high Walkability Index of the Central City Community Plan Area supports the expectation that projects located in the area would have a highly walkable environment. As a result, the Project would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide and Statewide average. Therefore, based on City data and expert guidance from State and regional agencies, the Project’s location in a walkable area would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency when compared to the Citywide and Statewide averages. Furthermore, the employment density score for the Central City Community Plan Area in the Health Atlas show that the Project would be located in an area consistent with the regional SCAG 2016 RTP/SCS goals to provide better “placemaking” and to reduce vehicular demand and associated emissions.

- **Workers Commuting by Walking, Biking, and Public Transportation:** The Health Atlas also indicates that the Central City Community Plan Area has a high percentage of workers that commute to work by walking, biking, and public transportation. The Central City Community Plan Area has the second highest percentage of workers who commute to work by walking, biking, and public transportation, at about 37 percent for the area as a whole, based on 2010 data. The Statewide percentage of workers who commute to work by walking, biking, and public transportation is approximately nine percent, based on census data for the 2010 to 2014 period.¹⁶³ As discussed previously, the Central City Community Plan Area is a highly walkable area and the area is also well served by frequent and comprehensive transit including the Metro Blue, Expo, Red, Purple, and Gold Lines, which provide convenient access to locations within Downtown Los Angeles and a multitude of locations outside the

¹⁶¹ WalkScore.com (www.walkscore.com) rates the Project Site area (1045 Olive, Los Angeles, CA 90012) with a score of 96 of 100 possible points (scores accessed August 2019). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

¹⁶² Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, page 112, <http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf>. Accessed June 2018.

¹⁶³ United States Census Bureau, American FactFinder, Data Set B08301 (Means of Transportation to Work, California, 2010-2014), https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_B08301&prodType=table. Accessed June 2018.

downtown area, and multiple bus lines. Thus, the data indicate that the Central City Community Plan Area substantially exceeds the Statewide average for the percentage of workers who commute to work by walking, biking, and public transportation. as discussed above, the Health Atlas findings are further substantiated by the CAPCOA guidance measures LUT-1, LUT-3, and LUT-9, and also by LUT-5 (Increase Transit Accessibility), which indicate that “high density near transit will facilitate the use of transit by people.”¹⁶⁴ The Health Atlas findings are also related to the goals of the 2016 RTP/SCS, which seek to implement “strategies focused on compact infill development, superior placemaking (the process of creating public spaces that are appealing), and expanded housing and transportation choices”¹⁶⁵ The high proportion of workers who commute to work by walking, biking, and public transportation in the Central City Community Plan Area supports the expectation that projects located in the area would utilize alternative forms of transportation. As a result, the Project would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide and Statewide averages. Therefore, based on City data and expert guidance from State and regional agencies, the Project’s location in an area accessible to alternative forms of transportation including walking, bicycling, and transit, and the Project’s incorporation of the Plaza through the Project Site connecting 11th Street and South Olive Street, would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency and increase the walkability of the area when compared to the Citywide and Statewide averages. Furthermore, the Project would be located in an area consistent with the regional 2016 RTP/SCS goals to provide more transportation choices and to reduce vehicular demand and associated emissions.

The above data from the City’s Health Atlas, together with the numerical GHG emissions calculations discussed below, provide additional supporting evidence for the conclusion that the Project’s design and location are consistent with and would not conflict with the regional goals to reduce GHG emissions from transportation, as reflected in the SCAG 2016 RTP/SCS. The Project’s specific location and intense mixed-use design in close proximity to existing high-quality transit, including the Metro Blue/Expo Lines and multiple bus routes, its close proximity to other off-site retail, restaurant, entertainment, commercial, and job destinations, and its highly walkable environment support the conclusion from this analysis that that the Project has been properly located so that its development would achieve a reduction in VMT greater than the Central Community Plan Area average and better than the City and Statewide averages. As such, the Project would be consistent with and would not conflict with regional plans to reduce VMT and associated GHG emissions.

¹⁶⁴ California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, page 171.

¹⁶⁵ Southern California Association of Governments, The 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy, page 14.

(3) Comparison of Project Characteristics to CARB's 2017 Updated Climate Change Scoping Plan

As discussed above, CARB's 2017 Updated Climate Change Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target of 40 percent below 1990 levels, which build on the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, improved vehicle, truck and freight movement emissions standards, increasing renewable energy, and strategies to reduce methane emissions from agricultural and other wastes by using it to meet California's energy needs. CARB's projected Statewide 2030 emissions figure takes into account 2020 GHG reduction policies and programs.¹⁶⁶ While the GHG reductions strategies in the 2017 Updated Climate Change Scoping Plan are not directed to and do not establish specific regulatory requirements for individual land use development projects, most impose general requirements on GHG emission sectors that would ultimately affect the design of new development, such as Statewide building energy standards, or the GHG emissions from such development, such as those associated with the transportation sector.

Table IV.F-7, *Comparison of Project Characteristics to Applicable 2017 Updated Climate Change Scoping Plan Greenhouse Gas Reduction Strategies*, contains a list of GHG-reducing strategies applicable to the Project. The analysis describes the consistency of the Project with the State's strategies in the 2017 Climate Change Scoping Plan to reduce GHG emissions. The 2017 Updated Climate Change Scoping Plan relies on a broad array of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms such as the Cap-and-Trade program. As shown below, the Project would incorporate PDFs and characteristics to reduce energy, conserve water, reduce waste generation, and reduce vehicle travel consistent with Statewide strategies and regulations. As a result, the Project would be consistent with and would not conflict with applicable 2017 Updated Climate Change Scoping Plan strategies and regulations to reduce GHG emissions.

TABLE IV.F-7
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE 2017 UPDATED CLIMATE CHANGE SCOPING PLAN GREENHOUSE GAS REDUCTION STRATEGIES

Action and Strategies	Responsible Party	Applicable Project Characteristics
Area		
SCAQMD Rule 445 (Wood Burning Devices). Restricts the installation of wood-burning devices in new development.	SCAQMD	The Project will comply with this regulatory mandate. All cooking stoves would either be electric or natural gas and pursuant to AQ-PDF-1, the Project's residential units do not include natural gas-fueled fireplaces.

¹⁶⁶ California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017. Available at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 2018.

Action and Strategies	Responsible Party	Applicable Project Characteristics
Energy		
California Renewables Portfolio Standard and SB 350. Senate Bill 2X modified California's RPS program to require that both public and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. California Senate Bill 2X also requires regulated sellers of electricity to meet an interim milestone of procuring 25 percent of energy supply from certified renewable sources by 2016. The Clean Energy and Pollution Reduction Act of 2015 (SB350) increases the standards of the California RPS program by requiring the amount of electricity sold to retail customers per year increases the proportion of electricity from renewable sources to 50 percent by 2030. It also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.	LADWP	While this action does not apply to individual projects, the Project would use electricity provided by LADWP, which is required to obtain 33 percent renewable power by 2020 and 50 percent by 2030. LADWP has committed to achieving 50 percent renewables by 2025, which is five years before the regulatory mandate. The Project would incorporate energy efficient measures as part of meeting the LEED Gold Certification level or equivalent green building standard.
CCR, Title 24. Energy Efficiency Standards for Residential and Nonresidential Buildings	State, Local Jurisdictions	The Project would meet or exceed the applicable requirements of the Los Angeles Green Building Code and the CALGreen Code. The Project would incorporate energy efficient measures as part of meeting the LEED Gold Certification level or equivalent green building standard.
Assembly Bill 1109. The Lighting Efficiency and Toxics Reduction Act (AB1109) prohibits manufacturing specified general purpose lights that contain levels of hazardous substances prohibited by the European Union. AB 1109 also requires a reduction in average Statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting by 2018.	State/Manufacturers	While this action does not apply to individual projects, as discussed above, the Project would meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code.

Action and Strategies	Responsible Party	Applicable Project Characteristics
<p>California Green Building Standards Code Requirements.</p> <p>Heating, ventilation, and air conditioning (HVAC) Systems will be designed to meet American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards.</p>	State, Local Jurisdictions	While this action does not apply to individual projects, the Project would install HVAC systems that would meet or exceed the energy standards in the applicable ASHRAE standards and Title 24 Building Energy Efficiency Standards.
Energy commissioning shall be performed for buildings larger than 10,000 square feet.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with the City's requirements as well as the requirements for the LEED Gold Certification level or equivalent green building standard.
Air filtration systems are required to meet a minimum efficiency reporting value (MERV) of 6 (residential) or 8 (non-residential), as applicable, or higher.	State, Local Jurisdictions	The Project would meet or exceed the requirement of MERV 6 (residential) or 8 (non-residential), as applicable, as part of its compliance with the City's requirements and the CALGreen Code.
Refrigerants used in newly installed HVAC systems shall not contain any CFCs.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with City and State requirements for the use of HFCs in HVAC systems.
Long-term and short-term bike parking shall be provided for up to 5 percent of vehicle trips.	State, Local Jurisdictions	The Project would be consistent with and would not conflict with the goal of this strategy by meeting City bicycle parking requirements. The Project would provide hundreds of bicycle parking spaces, which would exceed five percent of vehicular parking.
Stormwater Pollution Prevention Plan (SWPPP) required.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with the City's requirements and the CALGreen Code (See Section IV.H, <i>Hydrology and Water Quality</i> , of this Draft EIR).
Indoor water usage must be reduced by 20 percent compared to current California Building Code Standards for maximum flow.	State, Local Jurisdictions	The Project would exceed this requirement. Pursuant to AQ-PDF-1, the Project would reduce indoor water use by 40 percent and outdoor water use by 50 percent from the LEED usage baseline as part of its compliance with the City's requirements, the CALGreen Code, and meeting the LEED Gold Certification level or equivalent green building standard.

Action and Strategies	Responsible Party	Applicable Project Characteristics
All irrigation controllers must be installed with weather sensing or soil moisture sensors.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with the City's requirements, the CALGreen Code, and meeting the LEED Gold Certification level or equivalent green building standards.
Wastewater usage shall be reduced by 20 percent compared to current California Building Standards.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with the City's requirements, the CALGreen Code, and meeting the LEED Gold Certification level or equivalent green building standards.
Requires a minimum of 65 percent recycle or reuse of nonhazardous construction and demolition debris.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with the City's requirements, the CALGreen Code, and meeting the LEED Gold Certification level or equivalent green building standards.
Requires documentation of types of waste recycled, diverted or reused.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with the City's requirements, the CALGreen Code, and meeting the LEED Gold Certification level or equivalent green building standards.
Requires use of low VOC coatings consistent with SCAQMD Rule 1168.	State, Local Jurisdictions	The Project would be consistent with and would not conflict with this regulation and would meet or exceed the low VOC coating requirements by only purchasing and using coatings that meet the VOC requirements of SCAQMD Rule 1168.
Mobile Sources		
Mobile Source Strategy (Cleaner Technology and Fuels). Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.	State, CARB	<p>While this action does not apply to individual projects, the Project would be consistent with and would not conflict with this strategy by supporting the use of zero-emission and low-emission vehicles. The Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which the Project would designate a minimum of 5 percent of on-site parking for electric vehicles, pursuant to AQ-PDF-1.</p> <p>Furthermore, the Project would also reduce VMT as a result of its urban infill location, with access to public transportation within a quarter-mile of the Project Site, and its proximity to other destinations including off-site residential, retail, and entertainment. The Project is also located within a HQTAs as designated by SCAG.</p>

Action and Strategies	Responsible Party	Applicable Project Characteristics
AB 1493 (Pavley Regulations). Reduces GHG emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020.	State, CARB	While this action does not apply to individual projects, all vehicles used by Project residents, employees, and visitors would meet these standards.
Low Carbon Fuel Standard (Executive Order S-01-07). Establishes protocols for measuring life-cycle carbon intensity of transportation fuels and helps to establish use of alternative fuels.	State, CARB	While this action does not apply to individual projects, all vehicles used by Project residents, employees, and visitors would meet these standards.
Advanced Clean Cars Program. In 2012, CARB adopted the Advanced Clean Cars (ACC) program to reduce criteria pollutants and GHG emissions for model year vehicles 2015 through 2025. ACC includes the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.	State, CARB	While this action does not apply to individual projects, all vehicles used by Project residents, employees, and visitors would meet these standards. The Project would further support this measure by providing for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations for a minimum of 20 percent of the parking spaces, of which a minimum of 5 percent would be designated for on-site parking for electric vehicles, pursuant to AQ-PDF-1.
SB 375. SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.	State, CARB, SCAG	While this action does not apply to individual projects, the Project would be consistent with and would not conflict with SCAG RTP/SCS goals and objectives under SB 375 to implement "smart growth." As shown in Table IV.F-6, the Project would be consistent with and would not conflict with the SCAG 2016 RTP/SCS.
Water		
CCR, Title 24. Title 24 includes water efficiency requirements for new residential and non-residential uses.	State, Local Jurisdictions	See discussion under California Green Building Standards Code Requirements above.
Senate Bill X7-7. The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal.	State, DWR	See discussion under California Green Building Standards Code Requirements above.

Action and Strategies	Responsible Party	Applicable Project Characteristics
Solid Waste		
California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341. The IWMA mandated that state agencies develop and implement an integrated waste management plan which outlines the steps to be taken to divert at least 50 percent of their solid waste from disposal facilities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a Statewide goal for 75 percent disposal reduction by the year 2020.	State, Local Jurisdictions	While this action does not apply to individual projects, the Project would be served by a solid waste collection and recycling service, approved or licensed to collect solid waste in the City, that may include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with and would not conflict with Citywide recycling targets. According to the City of Los Angeles <i>Zero Waste Progress Report</i> (March 2013), the City achieved a landfill diversion rate of approximately 76 percent by year 2012. ¹⁶⁷
Other Sources		
Climate Action Team. Reduce diesel-fueled commercial motor vehicle idling.	State, CARB.	The Project would be consistent with and would not conflict with the CARB Air Toxics Control Measure to limit heavy duty diesel motor vehicle idling to no more than five minutes at any given time.
Achieve California's 75 percent waste diversion mandate (AB 341 Report to the Legislature, 2015) to reduce GHG emissions.	State, Local Jurisdictions	The Project would meet this requirement as part of its compliance with the City's waste diversion requirements and the CALGreen Code. The Project would be served by a solid waste collection and recycling service, approved or licensed to collect solid waste in the City, that may include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with and would not conflict with Citywide recycling targets. Further, as part of AQ-PDF-1, the Project would implement a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris.
Plant five million trees in urban areas by 2020 to effect climate change emission reductions.	Local Jurisdictions	While this action does not apply to individual projects, the Project would include the addition of 137 canopy trees and just over approximately 0.2 acres of planting area of native plants, shrubs, perennials, and ground-cover at the Project Site. At present, there are no trees located on the Project Site; however, five street trees are located along the street-

¹⁶⁷ City of Los Angeles, Department of Public Works, LA Sanitation, Zero Waste Progress Report, March 2013, <https://bioenergyproducers.files.wordpress.com/2016/11/la-zero-waste-report.pdf>. Accessed June 2018. .

Action and Strategies	Responsible Party	Applicable Project Characteristics
		side edge of Olive Street. The Project would provide a large elevated garden on the 8 th and 10 th floors of the building, three outdoor amenity spaces with planting areas and canopy trees, and a rooftop garden with planting areas and canopy trees. Landscaping would be provided along the street edges and throughout all of the Project's open space and would be selected from a large pallet of native plants. New street trees would be consistent with and would not conflict with the City's Bureau of Street Services, Urban Forestry Division standards. The Project would provide landscaping and garden uses that would complement the aesthetic character of the Project Site and enhance its relationship to surrounding buildings (refer to Figure II-4 of Chapter II, <i>Project Description</i>). All of the open space areas would have extensive landscaping and well-detailed hardscape. As a result, the Project design would be consistent with and would not conflict with this action and help the City to achieve its goal.
Implement efficient water management practices and incentives, as saving water saves energy and GHG emissions.	State, Local Jurisdictions	As discussed previously, the Project would meet this requirement, pursuant to AQ-PDF-1, as part of its compliance with the City's requirements, the CALGreen Code, and meeting the LEED Gold Certification level or equivalent green building standards.
Reduce GHG emissions from electricity by reducing energy demand. The California Energy Commission updates appliance energy efficiency standards that apply to electrical devices or equipment sold in California. Recent policies have established specific goals for updating the standards; new standards are currently in development.	State, Local Jurisdictions	While this action does not apply to individual projects, the Project would meet or exceed the energy standards in the Title 24 Building Energy Efficiency Standards, and the CALGreen Code.
Apply strategies that integrate transportation and land-use decisions, including but not limited to promoting jobs/housing proximity, high-density residential/commercial development along transit corridors,, and implementing intelligent transportation systems.	State, CARB, SCAG	The Project would be consistent with and would not conflict with the goals of SB 375, including the goal to reduce VMT and the corresponding emission of GHGs through infill development. The Project's dense, mixed used development is located on an urban infill Project Site that is located within an identified TPA. The Project co-locates its complementary commercial/restaurant and residential land uses in close proximity to existing off-site commercial and residential uses. The

Action and Strategies	Responsible Party	Applicable Project Characteristics
Reduce energy use in private buildings.	State, Local Jurisdictions	<p>Project is located in a highly walkable area served by frequent and comprehensive transit within a quarter-mile of the Project Site. The increases in land use intensity and diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.</p> <p>The Project would meet this requirement as part of its compliance with the City's requirements, the CALGreen Code, and meeting the LEED Gold Certification level or equivalent green building standards.</p>
SOURCE: ESA, September 2018		

According to the 2017 Updated Climate Change Scoping Plan, California is on track to meet its 2050 GHG reduction target as specified in Executive Order S-3-05.¹⁶⁸ The State's existing and proposed regulatory framework identified in the 2017 Scoping Plan can allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and puts the State on a trajectory to meet the target of reducing GHG emissions 80 percent below 1990 levels by 2050. According to the 2017 Updated Climate Change Scoping Plan, the reductions needed to achieve the 2030 target are expected to be achieved by targeting specific emission sectors, including those sectors that are not directly controlled or influenced by the Project, but that nonetheless contribute to Project-related GHG emissions.¹⁶⁹ For instance, Project-related emissions would decline as utility providers and transportation fuel producers are subjected to more stringent renewable energy standards, Cap-and-Trade, and the LCFS.

Even though the 2017 Updated Climate Change Scoping Plan and supporting documentation do not provide an exact regulatory and technological roadmap to achieve 2050 goals, they demonstrate that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that a combination of new technologies and other regulations not analyzed in the study or not currently feasible at the time the 2017 Updated Climate Change Scoping Plan was adopted could enable the State to meet the 2050 targets.¹⁷⁰ For example, the 2017

¹⁶⁸ California Air Resources Board, 2017 Climate Change Scoping Plan, p. 9, November 2017.

¹⁶⁹ California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, p. 97, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 2018.

¹⁷⁰ Energy + Environmental Economics (E3), Summary of the California State Agencies' PATHWAYS Project: Long-Term Greenhouse Gas Reduction Scenarios, April 2015; Greenblatt, Jeffrey, "Modeling California Impacts on Greenhouse Gas Emissions," Energy Policy, Vol. 78, pages 158-172. The California Air Resources Board, California Energy Commission, California Public Utilities

Updated Climate Change Scoping Plan states that some policies are not feasible at this time, such as Net Zero Carbon Buildings, but that this type of policy would be necessary to meet the 2050 target.

With Statewide efforts underway to facilitate the State's achievement of those goals, it is reasonable to expect the Project's GHG emissions to decline from their opening year levels as reported later in Table IV.F-5 as the regulatory initiatives identified by CARB in the 2017 Updated Climate Change Scoping Plan are implemented and other technological innovations occur. Stated differently, the Project's emissions at buildout likely represent the maximum emissions for the Project, as anticipated regulatory developments and technology advances are expected to reduce the GHG emissions associated with the Project, such as emissions related to electricity use and vehicle use. Given that the Project is consistent with and would not conflict with CARB's 2017 Updated Climate Change Scoping Plan and SCAG's 2016 RTP/SCS, as discussed above in Table IV.F-6 and Table IV.F-7, and the City's relevant plans, policies, and codes, as discussed below in Table IV.F-8 and Table IV.F-9, and given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project would be consistent with and would not conflict with the State's GHG reduction targets for 2030 and 2050.

(4) Comparison of Project Characteristics to Applicable Local City Plans and Actions

The significance of the Project's GHG emissions is next evaluated based on whether they would be generated in connection with a design that is consistent with and would not conflict with relevant City goals and actions designed to encourage development that results in the efficient use of public and private resources. **Table IV.F-8, *Comparison of Project Characteristics to Applicable City of Los Angeles Green New Deal Goals and Actions***, contain a list of GHG emission-reducing strategies applicable to the Project. The analysis describes the consistency of the Project with these GHG emissions-reduction goals and actions. As discussed in Table IV.F-8, the Project would be consistent with and would not conflict with the applicable goals and actions of these plans. In addition, as discussed below, the Project would also result in GHG reductions beyond those specified by the City and would minimize its GHG emissions by incorporating energy efficient design features and VMT reduction characteristics. Therefore, as the Project's GHG emissions would be generated in connection with a development located and designed to be consistent with and would not conflict with the applicable City plan goals and actions for reducing GHG emissions, the Project would not conflict with these City plans adopted

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% 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.

for the purpose of reducing GHG emissions, and the Project's GHG emissions would result in less than significant impacts.

TABLE IV.F-8
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES GREEN
NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
Chapter 3: Local Water	
Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.	While this action primarily applies to the City and LAWPD and not to individual projects, the Project design incorporates water efficiency measures defined in AQ-PDF-1. The Project would reduce water use by 40 percent for indoor water and 50 percent for outdoor water from the LEED usage baseline. The Project will also include water conservation features described in WS-PDF-1, Water Conservation Features (refer to Section IV.O.2, Water Supply, of this Draft EIR for additional details)
Chapter 4: Clean and Healthy Buildings	
Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 mBTU/sqft in 2015).	While this action applies to City departments and not to private development, the Project is designed and would operate to meet or exceed the applicable requirements of the State of CALGreen Code and the Green Building Code and meet the standards of the USGBC LEED Gold Certification level or its equivalent. The Project would incorporate energy efficiency measures defined in AQ-PDF-1. As a result, the Project would be consistent with and would not conflict with the City's action to reduce energy use.
All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.	The Project would comply with the State's and City's requirements that are designed to reduce GHG emissions over time, including the LA Green Building Code, Title 24, and other increasingly stringent energy conservation programs. In addition, The Project would consistently obtain carbon offsets to bring carbon emissions to net zero, as required in GHG-PDF-1. The Project would help the City move toward a net zero carbon future.
Chapter 5: Housing & Development	
Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.	The Project consists of the development of 794 new housing units.

Target	Project Consistency
Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.	The Project proposes a dense mixed-use development, including housing units, on a Project Site in an urban/compact infill location within Downtown Los Angeles. The Project would be located in a highly walkable area served by frequent and comprehensive transit within a half-mile of the Project Site, including within approximately 1,500 feet of the Metro Blue/Expo Line Pico Station and near to existing Metro bus routes (14, 28, 37, 70, 71, 76, 78, 79, 96 and 378), two Rapid Lines (770 and 728), one Foothill Transit Line (FT Silver Streak), one Santa Monica Transit Line (BBB10), and two LADOT Commuter Express Lines CE 431 and CE 437. The Project would provide access to on-site uses from existing pedestrian pathways. As a result, the Project's location and design are consistent with and would not conflict with this City action.
Chapter 6: Mobility & Public Transit	
Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.	The Project design and location would promote walking and bicycling by providing convenient access to and from on-site uses from 11 th Street, Olive Street and the Plaza area and then to multiple transit options. The Plaza's streetscaping, landscaping, and public art would be visible along the Project edges and contribute positively to the appearance, which would create an attractive and inviting walkable environment that would encourage pedestrians. The Project would locate residential and commercial/restaurant uses within a highly-walkable area of downtown Los Angeles that has multiple public transit options (with access to existing regional and local bus service and the Metro Blue/Expo Line Pico Station), and employment opportunities, restaurants and entertainment all within walking and/or bicycling distance. The Project would provide parking for hundreds of bicycles on-site to encourage utilization of alternative modes of transportation. As a result, the Project would be consistent with and would not conflict with this action.
Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.	While this action applies to the City and not to individual projects, as indicated in the vehicle miles traveled analysis in Appendix N of the Draft EIR, the results of the analysis show that with the Project, the Household VMT per capita would be 4.2 compared to the threshold of 6.0. Therefore, it has been concluded that the Project would not cause significant VMT impacts. It is also noted that the threshold for Household VMT per Capita at 6.0 is set at 15 percent below the average for the Central Area, indicating that the baseline Central Area value is 7.1. Therefore, the Project's Household VMT per Capita of 4.2 is 30 percent below the threshold and 41 percent below the average for the Central Area.

Target	Project Consistency
Chapter 7: Zero Emission Vehicles	
Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.	While this action applies to the City and not to individual projects, the Project would encourage the use of electric vehicles by providing parking spaces capable of supporting electric vehicle supply equipment as required in AQ-PDF-1.
Chapter 9: Waste & Resource Recovery	
Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.	While this action applies to the City and not to individual projects, the Project would be served by a solid waste collection and recycling service that may include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with and would not conflict with Citywide recycling targets.
Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).	While this action applies to the City and not to individual projects, the Project would be served by a solid waste collection and recycling service which would participate in City trash services, including separating trash from recycling through the use of blue and green recycling bins provided by the LA Sanitation Department.
Eliminate organic waste going to landfill by 2028.	The Project consists of a mixed-use development, which would participate in City trash services, including the participation in the organic waste recycling program once the Citywide residential program is implemented.
Chapter 11: Urban Ecosystems & Resilience	
Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.	While this action applies to the city in general, and not specifically to individual private development, the Project would include an 8 th Floor cut-out terrace above the Podium and a larger 10 th Floor Terrace where the Project would provide a large elevated garden on both the 8 th and 10 th floor terraces, with three outdoor amenity spaces with planting areas and canopy trees, and a rooftop garden with planting areas and canopy trees, and therefore the Project would incorporate heat island reduction strategies for the Project roof areas. The Project would be consistent with and would not conflict with the City's goal to reduce the heat island effect, with measures such as installing cool roofs on new buildings.

Target	Project Consistency
Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.	The Project would include 100,652 square feet of open space and would include a number of amenities for Project residents and visitors. The top of the 8 th and 10 th Floor Podium Terraces would contain residential amenities such as lounge areas and event areas; upper levels would contain mid-tower amenity spaces with such facilities as a pool and fitness center; and the Tower Roof Terrace would include active and passive open space amenities. The Project would also include a ground level public Plaza area, with 2,728 square feet of open space. The Plaza would include seating areas, with landscaping and art displays to provide respite to activate the northwest corner of Olive Street and 11 th Street. In addition, the Project has ready transit access to neighborhood parks including: Grand Hope Park; Pershing Square; Spring Street Park; San Julian Park; 6 th and Gladys Street Park; and Alvarado Terrace Park (See IV.L.5, Parks and Recreation, of this EIR for more information). As a result, the Project is consistent with and would not conflict with this City action.

SOURCE: City of Los Angeles, Green New Deal, 2019; ESA, September 2019

As this analysis demonstrates, the Project's direct and indirect annual GHG emissions would be generated by development located and designed to be consistent with and would not conflict with the City's relevant goals and actions intended to encourage development that results in the efficient use of public and private resources.

(5) Comparison of Project Characteristics to LA Green Building Code

By incorporating AQ-PDF-1, the Project would comply with the LA Green Building Code's intent to reduce GHG emissions by increasing energy-efficiency beyond requirements, reducing indoor and outdoor water demand, installing energy-efficient appliances and equipment, and complying with the 2016 California Title 24 Building Energy Efficiency Standards, as amended by the City. The CALGreen Code as amended by the City, provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems are functioning at their expected efficiency. As per AQ-PDF-1, the Project would be designed to optimize energy performance and reduce building energy cost for new construction, which would exceed the minimum building energy performance standards of the LA Green Building Code. The Project would also fulfill the mandatory requirements of the CALGreen Code as amended by the City by incorporating GHG reduction features such as implementing a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris, incorporating heat island reduction strategies including but not limited to high-reflectance and vegetated roofs for the Project roof areas, providing electric-vehicle charging stations, providing low-flow toilets, low-flow faucets

and low-flow showers, providing parking for hundreds of bicycles on-site to encourage utilization of alternative modes of transportation area, and other energy and resource conservation measures. The heating, ventilation, and air conditioning (HVAC) system would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain. The Project would also eliminate GHG emissions that would otherwise be emitted by natural gas fireplaces in the residential units by not including the use of residential natural gas fireplaces as per AQ-PDF-1. Therefore, the Project would be consistent with and would not conflict with the LA Green Building Code.

(6) Conclusion

In summary, the analyses of the Project's consistency with applicable regulatory plans and policies to reduce GHG emissions, supported by the GHG emissions analysis provided above, demonstrate that the Project would substantially comply with or exceed (and thereby not conflict with) the GHG reduction actions and strategies outlined in SCAG's 2016-2040 RTP/SCS, CARB's 2017 Updated Climate Change Scoping Plan, and the City's *Green New Deal* and Green Building Code. Furthermore, as discussed above, the Project's GHG emissions would reasonably be anticipated to decline once fully constructed and operational in accordance with future strategies implemented pursuant to the 2017 Updated Climate Change Scoping Plan and post 2030 State GHG regulations. As such, the Project would be consistent with and would not conflict with the State's GHG reduction targets for 2030 and 2050. **As the Project would be consistent with, and would not conflict with these applicable regulatory plans, policies, codes and actions to reduce GHG emissions, along with incorporation of PDFs discussed in this and other sections of this Draft EIR, particularly AQ-PDF-1 (Green Building Features), the Project's GHG emissions would be less than those if the set of plans, policies, and codes were not in place. The Project's GHG impacts would be less than significant, and no mitigation measures are required.**

e) Cumulative Impacts

CEQA requires that lead agencies consider evaluating the cumulative impacts of projects that have even relatively small impacts, since even small contributions to a cumulative impact (from which significant effects are occurring and are expected to worsen over time) may potentially be considerable and therefore significant. In the case of global climate change, the proximity of the Project to other GHG-generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. Further, as stated above, GHG emission impacts are, by their very nature cumulative, as both the California Natural Resources Agency and CAPCOA have recognized.¹⁷¹

¹⁷¹ California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, page 22-26, http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed June 2018.

As discussed above, the City determined to use Appendix G of the CEQA Guidelines as its thresholds of significance in assessing the significance of the Project's potential GHG emissions. In the absence of any adopted quantitative threshold, the City has determined that the Project's GHG emissions would not have a significant Project-level or cumulative effect on the environment under the Appendix G Thresholds if the Project is found to be consistent with and would not conflict with the applicable regulatory plans and policies to reduce GHG emissions, which include the emissions reduction measures included within CARB's Climate Change Scoping Plan, SCAG's 2016-2040 RTP/SCS, and the City's *Green New Deal* and Green Building Code. As discussed above in Table IV.F-6, Table IV.F-7, Table IV.F-8, Table IV.F-9, the Project would be consistent with and would not conflict with these applicable regulatory plans and policies to reduce GHG emissions. In addition, the Project's quantified GHG emissions and the comparison between the Project NIERM and Project scenarios further exhibit the Project's consistency with GHG reduction plans and policies when determining significance under the Appendix G Thresholds.

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily a significant adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to State or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change.¹⁷² The State has mandated a goal of reducing Statewide emissions to 1990 levels by 2020, even though Statewide population and commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce Statewide GHG emissions. As discussed above, currently, there are no applicable CARB, SCAQMD, or City of Los Angeles significance thresholds or specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative levels. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions., the City, as lead agency, has determined that the Project's contribution to cumulative GHG emissions and global climate change would be less than significant if the Project is consistent with the applicable regulatory plans and policies to reduce GHG emissions: CARB's 2017 updated Climate Change Scoping Plan, AB 900, SCAG's 2016-2040 RTP/SCS, and the Green New Deal.

Table IV.F-5 illustrates that development of the Project, including incorporation of its Project Design Features, and land use characteristics, would reduce GHG emissions. These reductions represent a substantial reduction from the Project NIERM scenario. The Project also supports State goals for GHG emissions reduction. The methods

¹⁷² The Project's net operational GHG emissions (without offsets) in the opening year would comprise approximately 0.001 percent of California's GHG emissions (based on CARB's 2015 inventory) and 0.000009 percent of global emissions (based on IPCC AR5 inventory).

used to achieve the Project's GHG emission reductions are consistent with and would not conflict with the approaches used in State, regional, and local plans, policies, and codes, as discussed above.

As demonstrated by Table IV.F-7, above, the Project is consistent with and would not conflict with the approach outlined in CARB's 2017 Updated Climate Change Scoping Plan, particularly its emphasis on the identification of emission reduction opportunities for achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, as recommended by CARB's 2017 Updated Climate Change Scoping Plan, the Project would incorporate "green building" features as a framework for achieving its GHG emissions reductions, as its new buildings would be designed to achieve the standards of the Gold Rating under LEED.

AB 900 establishes procedures for applying for streamlined environmental review under CEQA for Projects that meet certain requirements. The Project Applicant submitted an Application for CEQA Streamlining. As determined for that application, the Project would not result in the emission of any net additional GHGs, including GHG emissions from employee transportation in accordance with PRC Section 21183(c), as a result of the purchase of emission offset credits.

As part of the 2016 RTP/SCS, a reduction in VMT within the region is a key component to achieving the 2020 and 2035 GHG emission reduction targets established by CARB. As discussed in subsection 3.d)(1)(a), *Project Characteristics*, subsection 3.d)(1)(b), *Comparison of Project Characteristics to Applicable Regional Trip and VMT Reduction Goals, Actions, and Recommendations*, and subsection IV.F.3.d), *Analysis of Project Impacts – Operational Emissions*, the Project results in a VMT reduction of approximately 32 percent and a mobile source GHG emissions reduction of approximately 30 percent in comparison to the NIERM scenario (corresponding to a total GHG emissions reduction of approximately 22 percent in comparison to the NIERM scenario) and would be consistent with and would not conflict with the 2016 RTP/SCS.

In addition, as discussed throughout this Draft EIR, the Project has incorporated sustainability design features in accordance with regulatory requirements, mitigation measures, and Project Design Features to reduce VMT and to reduce or avoid the Project's potential impacts with respect to GHG emissions. With incorporation and implementation of these features and measures, the Project results in an approximately 26 percent reduction in GHG emissions from the NIERM scenario. The Project's GHG reduction measures and its consistency with CARB's 2017 Updated Climate Action Scoping Plan render the Project consistent with and not in conflict with AB 32.

As discussed in Section IV.B, *Air Quality*, and in Section IV.I, *Land Use and Planning*, of this Draft EIR, the Project would be consistent with and would not conflict with applicable land use policies of the City of Los Angeles and also of SCAG pertaining to air quality, including reducing GHG emissions.

As discussed above, the Project also would comply and be consistent with and would not conflict with the *Green New Deal*, which emphasize improving energy conservation and energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. The Project's regulatory requirements and Project Design Features and land use characteristics discussed above and throughout this Draft EIR would advance these objectives.

As discussed above, the Project's design and location would be consistent with and would not conflict with applicable GHG reduction strategies recommended by the City, SCAG, and the State. In addition, implementation of AQ-PDF-1 would exceed minimum regulatory requirements, and the Project would support and be consistent with and would not conflict with relevant and applicable GHG emission reduction strategies in the 2016-2040 RTP/SCS. These strategies include providing residences and retail uses in an urban infill location and within a relatively short distance of existing transit stops; providing employment near current transit stops and neighborhood commercial centers; and supporting alternative and electric vehicles via the installation of on-site electric vehicle charging stations. As a result, the Project would be consistent with the State's overarching goals and result in a GHG emissions profile that is constituent with State GHG reduction plans.

Furthermore, the overwhelming majority of the Project-related GHG emissions are generated from source sectors that include electricity, generated in-state or imported, and the combustion of transportation fuels. These sectors are already covered entities under the Renewables Portfolio Standard and Cap-and-Trade Program and, as such, are separately regulated and would be reduced sector-wide in accordance with the goals of AB 32, in addition to the previously discussed GHG emissions reductions from the Project-specific energy efficiency design features, and VMT-reducing land use characteristics of the Project.

As discussed above, the Project is consistent with the applicable GHG reduction plans and policies. The NIERM and Project scenario comparison demonstrates the efficacy of the measures contained in these policies. Moreover, while the Project is not directly subject to the Cap-and-Trade Program, that Program would indirectly reduce the Project's GHG emissions by regulating "covered entities" that affect the Project's GHG emissions, including energy, mobile, and construction emissions. More importantly, the Cap-and-Trade Program would backstop the GHG reduction plans and policies applicable to the Project in that the Cap-and-Trade Program will be responsible for relatively more emissions reductions if California's direct regulatory measures reduce GHG emissions less than expected. The Cap-and-Trade Program would ensure that the GHG reduction targets of AB 32 are met. Thus, given the Project's consistency with State, SCAG, and City of Los Angeles 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 emission of GHGs. In the absence of adopted standards and established significance thresholds, and given this consistency, it is concluded from the discussion above that the Project's impacts would not be cumulatively considerable.

f) Mitigation Measures

Project-level and cumulative impacts related to GMG emissions would be less than significant. No mitigation measures are required.

g) Level of Significance After Mitigation

Not applicable as impacts are less than significant without mitigation

4. Jobs and Economic Improvement Through Environmental Leadership Act

Although not specifically required under CEQA, the Project would voluntarily meet the requirements of the *Jobs and Economic Improvement Through Environmental Leadership Act*, which would allow the Project to qualify for streamlined environmental review under CEQA and requires, among other things, the Project, upon completion, to qualify for LEED Gold Certification, be located on an infill site, and not result in any net additional GHG emissions as determined by the Executive Director of CARB. As discussed previously, the Project would qualify for LEED Gold Certification and be located on an infill site. With respect to GHG emissions, the Project would not result in any net additional GHGs including GHG emissions from employee transportation. The Governor certified the Project as eligible under the *Jobs and Economic Improvement Through Environmental Leadership Act* on April 27, 2018. The Environmental Leadership Development Project certification and other related documentation are provided in Appendix G-2 of this Draft EIR.

As discussed previously and shown in Table IV.F-3, the existing Project Site results in GHG emissions of 446 MTCO_{2e} per year from the operation of the existing manufacturing and retail land uses. This represents the baseline GHG emissions for the Project Site based on year 2017 emissions and excludes any one-time construction GHG emissions that were generated when the existing uses and related infrastructure were originally built. The baseline GHG emissions were used to determine the net amount of carbon offsets that the Project would need to acquire to ensure no net increase in GHG emissions.

The Project would be built to meet and exceed today's energy and water efficiency standards and would incorporate a mix of residential, commercial, retail, and restaurant uses that would reduce vehicle trips to and from the Project Site, VMT, energy and water demand, and associated GHG emissions. The USGBC LEED Energy and Atmosphere Credit 7 [v4] requires that a project provide green power or RECs/carbon offsets for a minimum of five years. The Project would consistently obtain carbon offsets to bring carbon emissions to net zero. As required in GHG-PDF-1, prior to issuance of any Certificate of Occupancy for the Project, the Applicant or its successor shall commit to entering into one or more contracts to purchase carbon credits from a recognized and reputable carbon registry (to be selected from an accredited registry), which contract, together with any previous contracts for the purchase of carbon credits, shall evidence

the purchase of carbon credits in an amount sufficient to offset the Operational Emissions attributable to the Project, and shall be calculated on a net present value basis for a 30-year useful life. The Project meets the requirement for the Credit. Therefore, the Project would result in no new net GHG emissions and would meet the GHG emission requirements under the *Jobs and Economic Improvement Through Environmental Leadership Act* for streamlined environmental review under CEQA. Detailed documentation affirming and approving the Project's consistency with the GHG emission requirements under the *Jobs and Economic Improvement Through Environmental Leadership Act* are available from the Office of Planning and Research at the following website: <http://opr.ca.gov/ceqa/california-jobs.html>.

IV.G Hazards and Hazardous Materials

1. Introduction

This section analyzes the Project's hazards and hazardous materials impacts that could occur during construction and operation. The analysis is largely based on the *Phase I and Limited Phase II Environmental Site Assessment* (Phase I/II ESA) prepared for the Project by Leighton and Associates, Inc.¹ The *Phase I/II ESA* is provided in Appendix H of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

The use, storage, and disposal of hazardous materials are subject to federal, state, and local regulations as further discussed below.

(1) Federal

(a) *Resource Conservation and Recovery Act*

The federal Resource Conservation and Recovery Act (RCRA) (42 United States Code [U.S.C.] secs. 6901-6992k) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, generators of hazardous waste must register and obtain a hazardous waste activity identification number. RCRA allows individual states to develop their own programs for the regulation of hazardous waste as long as they are at least as stringent as RCRA's. The State of California has developed the California Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC] sec. 25100 et seq. and 22 California Code of Regulations [CCR] sec. 66260.1 et seq.) and the U.S. Environmental Protection Agency (USEPA) has delegated authority for RCRA enforcement to the State of California. Primary authority for the statewide administration and enforcement of HWCL rests with California Environmental Protection Agency's (CalEPA) Department of Toxic Substances Control (DTSC).

The Occupational Safety and Health Act of 1970, which is implemented by the federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. OSHA requirements, as set forth in 29 Code of Federal Regulations (CFR) Section 1910, et. seq., are designed to promote worker safety, worker training, and a worker's right-to-know. The U.S. Department of Labor has delegated the authority to administer OSHA regulations to the State of California. The California OSHA program (Cal/OSHA) (codified in the CCR, Title 8, or 8 CCR generally and in the Labor

¹ Phase I and Limited Phase II Environmental Site Assessment, Update, 1033 to 1057 South Oliver Street, City of Los Angeles, Los Angeles County California. Leighton and Associates Inc. January 3, 2018, and included in Appendix H of this Draft EIR.

Code secs. 6300-6719) is administered and enforced by the Division of Occupational Safety and Health (DOSH). Cal/OSHA is very similar to the OSHA program. Among other provisions, Cal/OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP) for potential workplace hazards, including those associated with hazardous materials.

Underground Storage Tanks (USTs) are regulated under Subtitle I of RCRA and its regulations, which establish construction standards for new UST installations (those installed after December 22, 1988), as well as standards for upgrading existing USTs and associated piping. Since 1998, all non-conforming tanks were required to be either upgraded or closed.

(2) State

(a) *California Hazardous Materials Release Response Plans and Inventory Law of 1985*

The Business Plan Act requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California HSC, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including CalEPA and the California Emergency Management Agency. The California Highway Patrol and Caltrans enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways.

The Business Plan Act applies to the commercial portion of this Project because any future business operators potentially using hazardous materials would be required to comply with its handling, storage, and transportation requirements that would reduce the possibility of spills, and to prepare an emergency response plan to respond to accidental spills.

(b) *Health and Safety Code, Division 20, Chapter 6.7*

The State regulates USTs pursuant to HSC, Division 20, Chapter 6.7, and CCR Title 23, Division 3, Chapter 16 and Chapter 18. The State's UST program regulations include among others, permitting USTs, installation of leak detection systems and/or monitoring of USTs for leakage, UST closure requirements, release reporting/corrective action, and enforcement. Oversight of the statewide UST program is assigned to the State Water

Resources Control Board (SWRCB) which has delegated authority to the Regional Water Quality Control Boards (RWQCB) and typically on the local level, to the fire department. The Los Angeles Fire Department (LAFD) administers and enforces federal and state laws and local ordinances for USTs at the Project Site. Plans for the construction/ installation, modification, upgrade, and removal of USTs are reviewed by LAFD Inspectors. If a release is documented that affects groundwater, the project file is transferred to the appropriate RWQCB for oversight.

(c) *California Division of Occupational Safety and Health (Cal/ OSHA)*

Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many entities to prepare injury and illness prevention plans and chemical hygiene plans, and provides specific regulations to limit exposure of construction workers to lead. OSHA applies to this Project because contractors will be required to comply with its handling and use requirements that would increase worker safety and reduce the possibility of spills, and to prepare an emergency response plan to respond to accidental spills.

(d) *The Safe Drinking Water and Toxic Enforcement Act*

The Safe Drinking Water and Toxic Enforcement Act (Division 20, Chapter 6.6, Section 25249.5 et seq.), Proposition 65, lists chemicals and substances believed to have the potential to cause cancer or deleterious reproductive effects in humans. It also restricts the discharges of listed chemicals into known drinking water sources above the regulatory levels of concern, requires public notification of any unauthorized discharge of hazardous waste, and requires that a clear and understandable warning be given prior to a known and intentional exposure to a listed substance. As such, businesses in the Project's commercial component would be required to post notices warning the public if their business includes the use of chemicals known to the state to cause cancer or reproductive toxicity.

(e) *Toxic Substances Control Act*

Polychlorinated Biphenyls (PCB)s are hazardous materials regulated by the EPA under the Toxic Substances Control Act (TSCA). These regulations ban the manufacture of PCBs although the continued use of existing PCB-containing equipment is allowed. PCBs were formerly used in such applications as hydraulic fluids, plasticizers, adhesives, fire retardants, and electrical transformers, among others. TSCA also contains provisions controlling the continued use and disposal of existing PCB-containing equipment. The disposal of PCB wastes is also regulated by TSCA (40 CFR 761), which contains life cycle provisions similar to those in RCRA. In addition to TSCA, provisions relating to PCBs are contained in the HWCL, which lists PCBs as hazardous waste.

(f) *California Water Code*

The California Water Code (CWC) authorizes the SWRCB to implement provisions of the Clean Water Act, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants. In regards to construction dewatering discharge analysis and treatment, groundwater may be encountered during deeper excavations for the subterranean parking structure, building foundations, or other subterranean building components. Under the CWC, discharges of any such groundwater to surface waters, or any point sources hydrologically connected to surface waters, such as storm drains, is prohibited unless conducted in compliance with a Waste Discharge Requirement (WDR) permit. In addition to the CWC, these permits implement and are in compliance with the federal Clean Water Act's National Pollutant Discharge Elimination System (NPDES) program. In accordance with these legal requirements, dewatering, treatment, and disposal of groundwater encountered during construction activities would be conducted in accordance with the Los Angeles Regional Quality Control Board (LARWQCB)'s Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, pursuant to adopted Order No. R4-2013-0095, or any other appropriate WDR permit identified by the LARWQCB.² Compliance with an appropriate WDR permit would include monitoring, treatment if appropriate, and proper disposal of any encountered groundwater in accordance with applicable water quality standards. If, for example, extracted groundwater contains Total Petroleum Hydrocarbons (TPH) or other petroleum breakdown compounds that exceed water quality standards, compliance with legal requirements would mandate treatment to meet published state water quality standards prior to discharge into a storm drain system.

(g) *Government Code Section 65962.5 (Cortese List)*

Government Code Section 65962.5, amended in 1992, requires the CalEPA to develop and update annually the Hazardous Waste and Substances Sites (Cortese) List, which is a list of hazardous waste sites and other contaminated sites. The Cortese List is a planning document used by the State, local agencies, and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites.

(3) **Local**

(a) *City of Los Angeles General Plan Safety Element*

The Safety Element of the City's General Plan is a State mandated element that guides the City in addressing the protection of people from unreasonable risks associated with

² Los Angeles Regional Water Quality Control Board, Order No. R4-2013-0095, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, June 6, 2013, https://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/permits/general/npdes/r4-2013-0095/Dewatering%20Order.pdf. Accessed January 19, 2018.

natural disasters, e.g., fires, floods, and earthquakes.³ The Safety Plan includes goals, objectives, and policies defining City actions to implement comprehensive, integrated hazard mitigation plans and programs; emergency response and recovery plans and programs; and disaster recovery plans. The objectives and policies are broadly stated to reflect the comprehensive scope of the Emergency Operations Organization (EOO), the City agency (program) which implements the Safety Element. It includes no objectives or policies that pertain to the review of new development projects to avoid or mitigate impacts. Notwithstanding, the policies guide the development of regulatory measures that may become applicable to development projects. The Safety Element also identifies responsibilities and protocols among City agencies in planning for and implementing services during an emergency event. Exhibit H, Critical Facilities and Lifeline Systems, of the Safety Element identifies disaster routes and selected emergency facilities that would provide needed infrastructure during an emergency response event. The disaster routes are illustrated on Figure IV.L.2-2, *Related Projects Served by Central Community Police Station*, of this Draft EIR. As indicated in the figure, none of the disaster routes is located adjacent to the Project Site - the nearest such route being located four blocks to the east on Figueroa Street.

(b) *Los Angeles Fire Code*

At the local level, the LAFD monitors the storage of hazardous materials for compliance with local requirements. Specifically, businesses and facilities that store more than threshold quantities of hazardous materials as defined in Chapter 6.95 of the California Health and Safety Code are required to file an Accidental Risk Prevention Program with the LAFD.⁴ This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations. The LAFD also issues permits for hazardous materials handling and enforces California's Hazardous Materials Release Response Plans and Inventory Law (HSC sec. 25500 et seq.). Basic requirements of California's Hazardous Materials Release Response Plans and Inventory Law include the development of detailed hazardous materials inventories used and stored on-site, a program of employee training for hazardous materials release response, identification of emergency contacts and response procedures, and reporting of releases of hazardous materials. Any facility that meets the minimum reporting thresholds (i.e., a mixture containing a hazardous material that has a quantity at any one time during the reporting year that is equal to, or greater than, 55 gallons for materials that are liquids, 500 pounds for solids, or 200 cubic feet for

³ City of Los Angeles, Department of City Planning, Safety Element of the Los Angeles City General Plan, adopted November 26, 1996, <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>. Accessed January 11, 2018.

⁴ The CalARP program encompasses both the federal "Risk Management Program," established in the Code of Federal Regulations, Title 40, Part 68, and the State of California program, in accordance with the Title 19 of the California Code of Regulations, Division 2, Chapter 4.5.

compressed gas) must comply with the reporting requirements and file a Business Emergency Plan (BEP) with the local administering agency.⁵

The LAFD also administers the Fire Life Safety Plan Check and Fire Life Safety Inspections interpreting and enforcing applicable standards of the Fire Code, Title 19, Uniform Building Code, City, and National codes concerning new construction and remodeling. As part of the Fire Life Safety Plan Check and Fire Life Safety Inspections, businesses that store hazardous waste or hazardous materials are subject to review if they exceed the thresholds noted above.

(c) Los Angeles Municipal Code

The Project Site is located in a City-designated methane buffer zone. Los Angeles Municipal Code (LAMC), Chapter IX, Article 1, Division 71, Section 91.7103, also known as the Los Angeles Methane Seepage Regulations, establishes requirements for buildings and paved areas located in methane zones and methane buffer zones. Requirements for new construction within such zones include methane gas sampling and, depending on the detected concentrations of methane and gas pressure at the site, application of design remedies for reducing potential methane impacts. The required methane mitigation systems are based on the site Design Level, with more involved mitigation systems required at the higher Site Design Levels. The required methane mitigation systems are designed so that when properly implemented, they reduce methane-related risks to a less than significant level.

b) Existing Conditions

The Project Site is 41,603 square feet in size and contains five existing commercial buildings and a paved parking lot area. It also includes and approximately 3,500 square feet of right of way and alley easement area.

The five existing buildings on the Project Site are each one-story in height. Tenants have varied over the years, with the Project Site currently including retail and warehouse uses, as well as some vacant spaces. As described in the Phase I/II ESA, the County of Los Angeles Assessor's Office website indicates that all of the buildings fronting Olive Street were constructed in 1911; however, according to building permits it appears that they were constructed in 1913. 1045 through 1054 South Olive Street consists of three buildings which have been connected into one structure.

⁵ California Health & Safety Code, Division 20, Chapter 6.95, Article 1; California Code of Regulations, Title 19, Sections 2620-2732; California Code of Regulations, Title 24, Part 9, Section 80.115; Los Angeles Municipal Code, Article 7 of Chapter V, Section 57.120.1, and 57.120.1.4

As described in the Phase I/II ESA, starting in 1888 the Project Site was initially developed with small dwelling units. By 1911/1913, the dwelling units had been removed and the Project Site was occupied by various commercial uses. From 1913 to 1950, tenants included an automobile showroom and garage, bicycle repair services, insurance, and movie and photo supplies. From 1950 to 1958, uses included wood working and spray painting, a machine shop, celluloid storage (i.e. film vault), photo engraving, messenger services, and movie and photo supplies. In the 1960s, uses included a machine shop, a warehouse, and display fixtures uses. Other uses after 1970 to 1995 included clothes manufacturing, printing facility, food store, and auto glass repair. From 1995 to 2015, commercial uses include a printing facility, immigration law firm, and a display fixture company.

As the Project Site is currently developed and/or paved, it is estimated to be 98 percent impervious. However, the soils and groundwater below the Project Site may have been subject to contamination, given the previous site uses, and construction activities within the Project Site over time. The majority of soil below the surface consists of clayey sand, sandy clay, and silty sand. These soils generally support adequate infiltration. When measured in 2015, groundwater seepage was encountered at depths of 60 feet and 85 feet and the groundwater table was at 120 feet below ground surface (bgs). The historical high groundwater level has been between 100 and 120 feet bgs.⁶ Groundwater is anticipated to follow topography, with groundwater in the vicinity of the Site anticipated to flow from the west to the southwest.

(1) Hazardous Materials Database Site Listings

Government Code Section 65962.5, amended in 1992, requires the CalEPA to develop and update annually the Cortese List, which is a list of hazardous waste sites and other contaminated sites. While Government Code Section 65962.5 makes reference to the preparation of a list, many changes have occurred related to web-based information access since 1992 and information regarding the Cortese List is now compiled on the websites of DTSC, the State Water Board, and CalEPA.

The DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions (such as a removal action) or extensive investigations are planned or have occurred. The database provides a listing of Federal Superfund Sites National Priorities List (NPL); State Response sites; Voluntary Cleanup sites; and School Cleanup sites. Geotracker is the State Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (USTs, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. CalEPA's database includes lists of sites with active Cease and Desist Orders (CDO) or Cleanup and Abatement Orders (CAO) from the State Water

⁶ Report of Geotechnical Engineering Services, Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California. March 2, 2018. Appendix F of this Draft EIR.

Board. As part of the Project's Phase I/II ESA, federal, state and local regulatory agency hazardous materials databases were reviewed by Environmental Data Resources, Inc. or EDR (a hazardous materials records search company) for known or suspected contaminated sites and for sites that store, generate, or use hazardous materials on and within the vicinity of the Project Site. The databases list properties by location and provides information regarding past use and the presence of hazardous conditions. The database listings are included in Appendix E of the *Phase I/II ESA* that is included in Appendix H of the Draft EIR. The database findings and relevant listings for the Project Site and nearby properties, respectively, are summarized below.

The complete results of the EDR regulatory agency hazardous materials database search are included in Appendix F of the *Phase I/II ESA* that is include as Appendix H of the Draft EIR. This includes the EDR Radius Map that identifies the location of each of the properties on the database list. In addition, regulatory records were requested from the National Pipeline Mapping System, LARWQCB, South Coast Air Quality Management District (SCAQMD), Chatsworth and Cypress office of the DTSC, Los Angeles County of Public Health, the Los Angeles Sanitation Department, Los Angeles Bureau of Engineering, Los Angeles Department of Public Works, and the LAFD. The responses from these agencies are included in Appendix F of the *Phase I/II ESA*. The relevant findings for the Project Site and nearby properties, respectively, are summarized below.

(a) *Project Site*

According to the regulatory agency hazardous materials database search conducted for the Phase I/II ESA, the Project Site is listed on one database:

- Hazardous Waste Information System (HAZNET) and FINDS Database: These databases document facility and manifest data received each year by the DTSC. This listing is for the 1035 South Olive C.I. Printing Company which is listed for the use of halogenated solvents, photochemical/photo processing waste, and unspecified solvent mixtures uses at the Site. No violations were listed for the use or disposal of these materials. These materials were properly disposed of using a treatment tank, recycler and solvent recovery.

(b) *Adjacent and Nearby Properties*

The Project Site is located within a fully urbanized area of the City. The areas immediately surrounding the Project Site consist primarily of commercial and industrial uses.

According to the regulatory agency hazardous materials database search conducted for the Phase I/II ESA, 53 environmental sites within a one-mile radius of the Project Site are listed on at least one hazardous materials database, including the Federal Compensation and Liability Information System (CERCLIS) List, Leaking Underground Storage Tanks (LUST), California UST/ Aboveground Storage Tanks (AST), ENVIROSTOR, and Spills, Leaks, Investigation and Cleanup (SLIC) databases. Of these sites, ten are within a 0.5-mile of the Project Site. Identification of potential hazardous conditions at surrounding

properties that could affect the Project Site is necessary to characterize the existing environmental setting and potential setting conditions that could be exacerbated by Project implementation. The off-site properties on one or more of these databases within a 0.5-mile search radius of the Project Site are summarized below to indicate whether there are hazardous setting conditions occurring that could be subject to exacerbation by implementation of the Project.

(i) *Democratic National Convention, Staples Center, 1111 South Figueroa Street:*

Located approximately 0.25 miles to the west/northwest of the Project Site, this removal-only facility located at the Staples Center was listed 'to track counter-terrorism actions and funding for the Democratic national convention at the Staples Center.' The remediation status indicates that the listed environmental concern was cleaned up. Due to this status and distance from the Project Site, there is a low potential for this facility to present adverse conditions at the Project Site that would be subject to exacerbation with during Project construction.

(ii) *Shell Service Station, 504 Olympic Boulevard:*

The Shell Service Station at 504 Olympic Boulevard, is located approximately 0.08 miles to the north of the Project Site. A gasoline release to soil was reported in 2008 at the Shell Station. According to the information on Geotracker, the Shell Station facility requested closure in December 2012. The request for closure states that oil present in a groundwater monitoring well located within the site boundaries has been characterized as a 'heavily degraded oil, likely a crude oil' and 'not a refined petroleum product'. Concentrations of volatile constituents and fuel oxygenates detected in groundwater samples collected from two monitoring wells during the same event at the Shell Station were relatively low. The Shell Station case was closed in July 2013. Based on the request for case closure and groundwater flow (cross-gradient), there is a low potential for the Shell Station facility to present adverse conditions at the Project Site that would be subject to exacerbation during Project construction.

(iii) *STATE UST/AST:*

The California State Water Resources Control Board (SWRCB) UST inventory list was reviewed to determine if any USTs are located adjacent to the Project Site. It should be noted that a listing in the UST database does not necessarily mean that a leak has occurred. The database search did not identify USTs located adjacent to the Project Site. In addition, the Facility Inventory Database (FID), Historical UST Registered Database (HIST UST), and the Statewide Environmental Evaluation and Planning System (SWEEPS) contain active and inactive UST locations; however, they are typically historical USTs. The database search identified six facilities located within 0.8 miles to the Project Site. Since these facilities did not appear to be located directly adjacent to the Project Site, are not listed on the LUST database, and depth to groundwater within the vicinity of the Project Site is generally in excess of 100 feet bgs, there appears to be a

low potential for these facilities to present adverse conditions at the Project Site that would be subject to exacerbation during Project construction.

(iv) *FC Broadway Hill, 1108 South Hills Street and 1201 Main Street:*

FC Broadway and Hill, 1108 South Hill Street and 1201 South Main Street, are located approximately 0.1 mile to the south-southeast of the Project Site in a hydrologically down-gradient or cross-gradient location. The facility is listed as an active voluntary cleanup site with former USTs and contaminants of concern identified as tetrachloroethylene (PCE) and trichloroethylene (TCE) in soil and soil vapor. The facility also conducted vehicle maintenance with contaminants of concern including gasoline and associated oxygenates. Based on the intervening distance and expected down-gradient location from the Project Site, this facility is expected to have a low potential to present adverse conditions at the Project Site that would be subject to exacerbation during Project construction.

(v) *Staples Arena, 740-750 West 10th Place:*

Staples Arena, 740-750 West 10th Place is located approximately 0.36 miles to the west/northwest of the Project Site. The status is listed as “open remediation” on the EDR Radius Report. Geotracker was reviewed for additional information and the facility was listed as case closed as of April 26, 2004. Additional information was not provided. Due to the distance of the facility to the Project Site, groundwater flow (cross-gradient), as well as the closed listing, there appears to be a low potential for this facility to present adverse conditions at the Project Site that would be subject to exacerbation with Project construction.

As concluded in the Phase I/II ESA, based on the nature and extend of these properties, and nature and distance of any reported releases, the position of reported releases with respect to the regional groundwater flow direction, current regulatory status, and/or the absence of reported releases, the Phase I/II ESA did not consider the properties described above to potentially cause a recognized environmental condition (REC)⁷ and therefore subject to an exacerbation of adverse conditions with implementation of the Project.

(vi) *Historical Auto Stations and Cleaner Facilities*

Additionally, a review of the EDR Historical Auto Stations database identified 34 historical auto stations located within a 0.25-mile radius of the Project Site. The EDR Historical Cleaners database identified six historical cleaner facilities located within a 0.25-mile

⁷ American Society for Testing & Materials E 1527-13 defines RECs as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

radius of the Project Site. However, these facilities were not listed on the databases as sites of likely environmental concern. Nevertheless, as discussed subsequently in this Section, a soil vapor survey was undertaken on the Project Site as part of the ESA Phase I/II, to assess for potential on and offsite impacts from historical auto stations and cleaner facilities.

(2) Hazardous Materials on the Project Site

No water treatment, sewage treatment/disposal, landfill facilities, wastewater treatment/disposal systems, wells, oil and gas fields, or pits/ponds/lagoons, cisterns, sumps or drains were observed on the Project Site during the site reconnaissance during preparation of the Phase I/II ESA, with the exception of a floor drain located in the 1045 South Olive Street building. No vegetation was observed at the Project Site.

Hazardous materials were not observed onsite during the site reconnaissance with the exception of materials associated with the C.I. Printing commercial tenant located at 1035 South Olive Street. This business had numerous one-gallon containers of printing ink, one 55-gallon drum of photo processing waste, and one 55-gallon drum of Solvit QD, a plate washing solvent. It should be noted that the Project Site was over 95 percent covered with structures. Within the structures, approximately 70 percent of the ground surface was unobservable due to storage racks, warehousing materials, and retail items.

(a) *Subsurface Soil and Soil Gas Contamination*

Due to the historical commercial uses on the Project such as automotive services, printing and cleaning services, and nearby auto station and cleaner facility uses, there is a potential for risks associated with potential soil vapor encroachment on the Project Site. As part of the Phase I/II ESA, onsite soil and soil vapor was evaluated for the presence of VOCs including benzene, ethyl benzene, toluene and xylenes (BTEX), methyl tert butyl ether (MTBE) and TPH, and metals in soil.

On December 2, 2015, two onsite soil borings, (CH1 and CH2), were advanced on the Project Site which are shown in **Figure IV-G-1, Boring Locations**. The borings were advanced using direct push to advance CH1 and hand auger to advance CH2. CH1 was advanced to 20 feet bgs and soil samples were collected at 2.5, 5, 10, 15, and 20 feet bgs in acetate sleeves, covered with Teflon, and capped. Multi-nested soil vapor probes were installed at 5 and 15 feet bgs following soil sampling of CH1. Soil samples from CH2 were collected at 2.5 and 5 feet bgs and one soil vapor probe was installed at 5 feet bgs.

The soil samples were field-screened using a photoionization detector (PID) to indicate the presence of volatile organic vapors. No odors or PID readings were detected in the soil samples collected from the borings. The soils from CH1 generally consisted of light brown clay and silty clay in the upper 5 feet followed by gravelly sand to 20 feet bgs. The soils from CH2 generally consisted of brown silty clay with sand. Groundwater was not encountered during the advancement of the borings.



SOURCE: Leighton Geomatics, 2016

1045 Olive Project

Figure IV.G-1

Boring Locations

Following soil boring advancement, the soil borings were converted to soil gas monitoring probes. The soil gas probes were installed in general accordance with the CalEPA, DTSC, and California Regional Water Quality Control Board, Los Angeles and San Francisco Region's (LARWQCB and SFRWQCB) Advisory, Active Soil Gas Investigations, 2015.

The soil samples were analyzed for total petroleum hydrocarbons, carbon chain (TPH-cc) by EPA Method 8015 and for VOCs by EPA Method 8260B/5035. In addition, the 2.5-foot soil samples were analyzed for Title 22 Metals utilizing EPA Method 6010B/7471A. Select soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) by EPA Method 8260B. The soil vapor samples were analyzed by VOCs by EPA Method 8260. The results are explained below:

(i) Soil Samples

TPH-cc was not detected in the soil samples with the exception of CH1-2.5, CH2-2.5, and CH2-5.0. The three soil samples were subsequently analyzed for TPH-g and were below the laboratory detection limits. VOCs were not detected in the samples above the laboratory detection limits. Metals were not detected above applicable screening levels in the soil samples analyzed.

The Phase I/II ESA compared the reported TPH concentrations in the soil samples to the Maximum Screening Levels (MSLs) established by the State Water Resource Control Board, Region 4 for Underground Storage Tanks Closure Criteria. The reported TPH concentrations were well below the established MSLs of 500 mg/kg for TPH in the C4-C12 range.

(ii) Soil Gas

The soil gas samples reported low levels of PCE and benzene, toluene, ethylbenzene, and xylenes (BTEX) above the laboratory detection limits. However, the concentrations were below the EPA Regional Screening Levels for a residential property. The leak detection compound for the onsite samples, n-pentane, was not reported above the laboratory reporting limit.

Leighton conducted a Limited Phase II ESA in November 2014 on the properties located at 1039 through 1057 South Olive Street. Ten onsite soil samples were analyzed for lead and they were all reported to be well below the California Human Health Screening Levels (CHHSL) of 80 mg/kg with the exception of B13-5 where lead was detected at 180 mg/kg. The Limited Phase II indicated that this level of lead does not present a significant health risk.

(b) *Methane*

The Project Site is located within the City of Los Angeles Methane Zone on the City of Los Angeles Department of Building and Safety's Zone Information and Map Access System. These areas have a risk of methane intrusion emanating from geologic formations. A methane survey was conducted in November 2014 to a maximum depth of 45 feet bgs at the Project Site. Methane was not reported above the laboratory reporting limit in any location and pressure readings did not exceed 0.0 inches of water. While the Project would result in a deeper excavation depth than tested in the 2014 methane survey, the Project would be subject to the design and permitting requirements established by LADBS as defined in LAMC Section 91.7102 for a Project Site located within a Methane Zone.

(c) *Oil Production Area and Methane Hazard Zone*

Oil field maps published by the State of California Division of Oil, Gas and Geothermal Resources (DOGGR), and online mapping systems (DOGGR Well Finder), were researched as part of the Phase I/II ESA to determine whether oil production occurred on or near the Project Site. According to these sources, no oil production has occurred on the Project Site.

(d) *Underground Storage Tank*

Three small USTs of unknown origin or purpose were identified on a substructure map within the sidewalk along West 11th Street and South Olive Street, immediately adjacent to the Project Site. A previous geophysical survey conducted in 2014, identified the potential of the USTs being present, although the results were not definitive. During Project Site reconnaissance, an asphalt patch was observed in the sidewalk near one of the three possible "tank" locations noted in the substructure maps (Appendix F of the *Phase I/II ESA*). Therefore, it is possible that USTs may be present that could be affected by development within the Project Site, but would not be subject to impacts from other related projects, as they are located farther away.

(e) *Asbestos-Containing Materials (ACMs)*

Asbestos is a naturally-occurring mineral made up of microscopic fibers that has been widely used in the building industry for a variety of uses, including acoustic and thermal insulation and fireproofing. It is often found in ceiling and floor tiles, linoleum, and pipes, as well as on structural beams and asphalt. However, asbestos can become a hazard when the fibers separate and become airborne. Asbestos has been linked to lung disease cause by inhalation of airborne asbestos fibers. In 1979, a ban on ACMs in building materials was imposed, although it is still possible to detect ACMs in buildings built after 1980. Asbestos containing building materials were previously identified in a Limited Hazardous Materials Survey conducted in 2014 for the 1039 through 1057 South Olive Street structures. Due to the age of all of the onsite structures, it is likely that the buildings on the Project Site contain asbestos building materials.

(f) *Lead-Based Paints (LBPs)*

Lead is a naturally occurring element and heavy metal that was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments, and drying agents from the early 1950s to 1972, when the Consumer Products Safety Commission (CPSC) specified limits on lead content in such products. In 1977, CPSC banned the production of virtually all house paints containing lead and banned its use in commercial buildings in 1978. Lead based paint and universal waste (i.e., batteries, pesticides, mercury-containing equipment and lamps) were previously identified in a Limited Hazardous Materials Survey conducted at 1039 through 1057 South Olive Street in 2014. Due to the age of all of the onsite structures, it is likely that the buildings on the Project Site contain lead based paint building materials.

(g) *Polychlorinated Biphenyls (PCBs)*

PCBs are hazardous materials that were formerly used in such applications as hydraulic fluids, plasticizers, adhesives, fire retardants, etc. PCBs were also used in electrical transformers until the 1970's, at which time they were banned. No evidence of PCB-containing equipment was observed on the Project Site.

(h) *Radon*

Radon is an invisible, odorless, radioactive gas formed by the decay of uranium in the earth's soil that migrates to the surface through cracks and pore spaces in the soil. Radon gas dissipates in outdoor settings and is present at concentrations considered to be harmless. However, radon gas can accumulate inside buildings and enclosed spaces, depending on the building location, ventilation, and other factors. The California Department of Health Services (CDPH) and the USEPA both recommend a radon threshold of 4 picocuries per liter (pCi/L) above which certain precautions be taken to mitigate radon buildup in structures.

The USEPA maintains a map of California which depicts Los Angeles County as being located within Radon Zone 2, an area of predicted average indoor radon screening level between 2 and 4 pCi/L. In addition, the California Department of Health Services maintains a database of indoor radon levels that are sorted by zip code. While the Project Site's zip code was not listed, nearby zip codes of 90014 and 90011 states that 15 tests were completed for these zip codes and none of tests exceeded 4 pCi/L. Therefore, the potential for elevated radon levels at the subject property appears to be low.

(1) **Recognized Environmental Conditions**

The purpose of the Phase I/II ESA was to identify pursuant to the processes prescribed in the American Society for Testing & Materials (ASTM) International E1527-13, RECs, historical RECs (HRECs), or controlled RECs (CRECs) in connection with the Project Site.

RECs are defined, according to ASTM E1527-13, as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions⁸ are not RECs.”⁹

The Phase I/II ESA did not identify a REC associated with the Project Site. However, the Phase I/II ESA recommended the proper procedures for abatement and disposal of all identified asbestos containing building materials, lead-based paint, and universal waste.

In addition, as noted above, three small USTs were identified on a substructure map within the sidewalk along West 11th Street and South Olive Street. A previous geophysical survey had identified three anomalies in the general vicinity of the former “tank” locations within the sidewalk adjacent to the Project Site. This is an immediately adjacent REC with the potential to affect the Project Site and therefore subject to an exacerbation of adverse conditions with implementation of the Project.

HRECs are defined, according to ASTM E1527-13, as “a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.”¹⁰

As described above, historical uses of the Project Site have included wood working, spray painting, machine shop, film vault storage, printing, auto service, light manufacturing, and metal auto body works. Based on the Phase I/II ESA and prior ESAs conducted, these former operations do not appear to have adversely affected the Project Site soil or soil vapor in the areas investigated.

CRECs are defined, according to ASTM E1527-13, as “a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.” (ASTM E1527-13, 2013).¹¹

⁸ De minimis conditions are defined by the ASTM as environmental conditions that “generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.”

⁹ American Society for Testing & Materials, <https://www.astm.org/Standards/E1527.htm>. Accessed May 31, 2018.

¹⁰ Leighton and Associates Inc. Phase I and Limited Phase II Environmental Site Assessment, Update, 1033 to 1057 South Oliver Street, City of Los Angeles, Los Angeles County California, Page 1. January 3, 2018, and included in Appendix H of this Draft EIR.

¹¹ Leighton and Associates Inc. Phase I and Limited Phase II Environmental Site Assessment, Update, 1033 to 1057 South Oliver Street, City of Los Angeles, Los Angeles County California, Page 1. January 3, 2018, and included in Appendix H of this Draft EIR.

The Phase I/II ESA did not identify any CRECs on the Project Site.

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to hazards and hazardous materials in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as its thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with the State CEQA Guidelines Appendix G, the Project would have a significant impact related to hazards and hazardous materials if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project result in a safety hazard or excessive noise for people residing or working in the project area?**
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**
- g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?**

The L.A. CEQA Thresholds Guide identifies the following criteria to evaluate hazards and hazardous materials:

(1) Risk of Upset/Emergency Preparedness

- The regulatory framework;
- The probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance;

- The degree to which a project may require a new, or interfere with an existing, emergency response or evacuation plan, and the severity of the consequences; and
- The degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance.

(2) Human Health Hazards

- The regulatory framework;
- The probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance;
- The degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance.

b) Methodology

The evaluation of the Project's potential hazards and hazardous materials impacts associated with construction and operation is based, in part, on the information provided in the *Phase I/II ESA* prepared for the Project and included in Appendix H of this Draft EIR.

The Phase I/II ESA was prepared to ASTM E1527-13 *Standard Practice for Environmental Site Assessments* requirements for assessing the presence or potential presence of above-ground and subsurface hazardous materials at the Project Site. Tasks performed for the Phase I/II ESA included: a reconnaissance visit of the Project Site; a review of client supplied data including previous Phase I and II ESAs prepared for the property; a review of building and grading permits on file with the City of Los Angeles Department of Building and Safety; a records review request for UST tiles and industrial waste records maintained by the LAFD Underground Storage Tank and Hazardous Materials Division; a review of historical USGS topographic maps; a review of historical aerial photographs, research of historical Sandborn Fire Insurance Maps; contact with Cal EPA, DTSC, RWQCB, and SCAQMD to review their files; review of the DOMS Online Mapping Program, Oil Field Maps, and oil well records maintained by the State of California Division of Oil, Gas and Geothermal Resources; a review of landfill records; a review of regulatory agency hazardous materials databases; a review of previous geotechnical and hazardous materials investigations conducted for the Project Site; and preparation of the Phase I/II ESA Report.

(1) Previous Investigations

The previous hazardous materials investigations of the Project Site reviewed in connection with preparation of the Phase I/II ESA include the following:

- **Environmental Site Assessment of 1045 South Olive Street, Los Angeles, California 90015, Project # P1-90015-092000, October 10, 2000, prepared by Glenfos Inc.**

Glenfos Inc. (Glenfos) indicated potential environmental concerns relating to the older residential development (possible heating oil tanks), the former auto repair garage (hydraulic hoists and the use of degreasing solvents, and the former auto glass facility (the use of degreasing solvents). Glenfos also noted the observation of concrete patches that appeared to be related to former hydraulic hoists. A subsequent Phase II Environmental Site Assessment was conducted by Glenfos Inc. to address these issues (see below). **Phase II Environmental Site Assessment of 1045 South Olive Street, Los Angeles, California 90015, Project # P2-90015-101100, October 27, 2000, prepared by Glenfos Inc.**

Glenfos advanced seven soil vapor probes throughout 1045 South Olive Street to depths ranging from four to six feet below ground surface. The seven soil vapor samples were analyzed for VOCs using a laboratory-grade Hewlett Packard model 5890 Series II gas chromatograph. VOCs were not detected in the soil vapor samples.

In addition, Glenfos advanced five soil borings to a maximum depth of 10 feet bgs. Soil samples were collected at depths of 5 and 10 feet bgs. The 10 soil samples were analyzed for TPH by EPA Method 8015M. TPH was not detected above laboratory detection limits in the 10 analyzed soil samples. Glenfos concluded that additional assessment was not warranted.

- **Phase I Environmental Site Assessment Report, ACME Display Fixture Company, 1057 South Olive Street, Los Angeles, California 90015, Project No. 0805-386, June 18, 2008, prepared by Andersen Environmental.**

Andersen Environmental (AE) conducted a Phase I ESA on the ACME property located at 1045 through 1057 South Olive Street. At the time of the assessment, the property consisted of three one story retail/warehouse structures that were combined for use by ACME. AE reviewed Los Angeles City Utility Maps which identified the presence of one UST of unknown contents east of 1045 South Olive Street and one gasoline UST east of 1053 South Olive Street.

AE concluded that the two USTs are a REC for the property and recommended collecting soil samples below the USTs for the purposes of determining if a significant release had occurred or if a UST needed to be removed. While not a REC, AE recommended an asbestos and lead-based paint survey. In addition, the property was identified as located within a methane zone.

- **Draft Phase I Environmental Site Assessment, 1045 to 1057 South Olive Street, Los Angeles, California, Project No. 33114-014113.00, July 15, 2014, prepared by Bureau Veritas.**

Bureau Veritas North America, Inc. (BVNA) conducted a Phase I ESA on the ACME property located at 1045 through 1057 South Olive Street.

BVNA recommended a limited subsurface investigation, to include a geophysical survey along the sidewalk perimeters east and south of the building. In addition, the investigation should include obtaining soil and analytical data to support disposal of materials to be removed for the planned construction.

- **Leighton, Draft Phase I Limited Phase II ESA, 1039 to 1057 South Olive Street, Los Angeles, California, Project No. 10849.001/.002, December 4, 2014, prepared by Leighton.**

Three small tanks were identified on a substructure map within the sidewalk along West 11th Street and South Olive Street. Therefore, a geophysical survey was performed as part of the limited Phase II ESA. The geophysical survey used metal detectors and other ground penetrating radar to identify potential subsurface steel that might represent USTs. The data collected identified three material anomalies in the general vicinity of the previously mapped tank locations within the sidewalk. These subsurface detected anomalies may represent the presence of USTs, but could also be due to other utility remnants (e.g., lids, pipes, etc.). Hazardous materials were not observed onsite during the site reconnaissance. Circular concrete patches in building 1053 were observed on the ground surface within the structure.

A Limited Hazardous Materials Survey was conducted and asbestos containing building materials, lead-based paint, and universal waste was identified in the Limited Hazardous Materials Survey. The Project Site was reported to be located within the City of Los Angeles Methane Zone. A methane survey was conducted in November 2014 to a maximum depth of 45 feet bgs for a proposed development including two levels of subsurface parking. Methane was not reported above the laboratory reporting limit in any location and pressure readings did not exceed 0.0 inches of water; therefore, the Site was determined to be in Level 1, and at a minimum a soil vapor barrier and passive venting system would be required in accordance with the City of Los Angeles Ordinance No. 175790.

Due to the historical use of the Project Site, anomalies identified in the geophysical survey, and proposed residential development and excavation activities, Leighton conducted a Limited Phase II ESA. The findings and recommendations of this investigation were as follows:

- Based on the analytical results, the onsite soils in the vicinity of the boring locations did not appear to be affected by a release of VOCs and TPH above the laboratory reporting limits. Metals were detected in the soil samples analyzed; however, the metal concentrations were below the applicable California Human Health Screening Levels (CHHSLs) with the exception of lead. Lead exceeded the more conservative residential CHHSL of 80 milligrams (mg/kg) in one of the soil samples analyzed at a concentration of 180 mg/kg. This concentration was below the hazardous waste screening criteria of 1,000 mg/kg. Based on the analytical results, the onsite soil gas in the vicinity of the boring locations do not appear to be affected by a release of Methane and TPH-gasoline above the laboratory reporting limits.

- VOCs were detected in onsite soil gas samples at concentrations above the laboratory reporting limits. However, these concentrations were below the residential CHHSLs. VOCs, specifically Carbon Tetrachloride and Benzene, were detected in two offsite soil gas samples located along Olive Street near 11th Street, at concentrations exceeding the residential CHHSLs. However, the VOCs were detected at relatively low concentrations that are not considered to be subject to release by Project implementation in a manner that would cause a health risk. A passive methane vapor barrier would be required beneath new construction and the proposed subsurface parking would limit exposure to acceptable levels.
- Based on the analytical results, the soil cuttings generated during the advancement of the soil borings were considered likely to be characterized as non-hazardous waste.

c) Project Characteristics

No Project Design Features have been incorporated in the Project specifically related to hazardous materials.

d) Analysis of Project Impacts

Threshold a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?* Less than Significant Impact.

(1) Construction

Construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. As part of regulatory compliance, Cal/OSHA requires the preparation of injury and illness prevention plans, chemical hygiene plans to address materials handling to increase worker safety and reduce the possibility of spills, and emergency response plans to respond to accidental spills. Accordingly, potential hazardous materials would be used, stored, and disposed of in consumer quantities and in accordance with applicable laws, regulations and manufacturers' instructions. Therefore, construction of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **The impact would be less than significant, and mitigation measures are not required.**

(2) Operation

Operation of the Project would involve common activities associated with residential and retail and/or restaurant uses, along with activities associated with recreational and community facilities. Hazardous materials utilized in day-to-day operation of the Project would include, but not be limited to, typical household, commercial, vehicle, pool and spa,

and landscaping maintenance materials (i.e. cleaning solvents, oil and grease, painting supplies, pesticides and fertilizers for landscaping, and water disinfectants for pool maintenance). The use of these materials would be in small quantities and in accordance with the manufacturer's instructions for use, storage and disposal of such products. **Therefore, operation of the Project would not require the use, transport or disposal of significant quantities of hazardous materials; therefore, impacts regarding hazards and hazardous materials would be less than significant and mitigation measures are not required.**

Threshold b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? Less than Significant Impact with the Implementation of Mitigation Measures.

(1) Construction

Project construction would not involve the use of hazardous materials in substantial amounts such that a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions would result from temporary construction activities. However, the Phase I/II ESA for the Project identified the following items of potential environmental concern during construction:

(a) Asbestos Containing Materials

ACMs were previously identified in a Limited Hazardous Materials Survey conducted in 2014 for the 1039 through 1057 South Olive Street structures. The onsite structures were built before the 1978 federal regulations banning the use of ACMs and it is likely that the buildings on the Project Site contain asbestos building materials.

Therefore, there is a potential for the presence of ACMs in the onsite buildings, and if released into the environment, ACMs could pose a significant hazard. If ACMs are encountered, remediation or abatement of these materials in accordance with all applicable regulations and standards. In California, any facility known to contain asbestos is required to have a written asbestos management plan (also known as an Operations and Maintenance Program [O&M Program]). Removal of ACMs must be conducted in accordance with the requirements of SCAQMD Rule 1403. Rule 1403 regulations require that the following actions be taken: (1) a survey of the facility prior to issuance of a permit by SCAQMD; (2) notification of SCAQMD prior to construction activity; (3) asbestos removal in accordance with prescribed procedures; (4) placement of collected asbestos in leak-tight containers or wrapping; and (5) proper disposal. Therefore, prior to the issuance of any permit for the demolition or alteration of the existing on-site buildings, a comprehensive ACMs survey of the buildings would be performed. If no ACMs are found, the Project Applicant would provide a letter to the City of Los Angeles Building and Safety Division from a qualified asbestos consultant indicating that no ACMs are present in the onsite buildings. If ACMs are found to be present, they would be abated in compliance

with the SCAQMD Rule 1403 as well as other applicable State and Federal rules and regulations, thus avoiding hazardous impacts to the public.

(b) Lead-Based Paint

Lead-based paint, and universal waste were previously identified in a Limited Hazardous Materials Survey conducted at 1039 through 1057 South Olive Street in 2014. Due to the age of all of the onsite structures, it is likely that the buildings on the Project Site contain lead-based paint building materials.

Therefore, the potential exists that the presence of LBPs in the onsite buildings could pose a hazard to the public or the environment during construction. However, Cal/OSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 establishes the rules and procedures for conducting demolition and construction activities and establishes exposure limits, exposure monitoring, and respiratory protection for workers exposed to lead. Accordingly, prior to issuance of any permit for the demolition or alteration of the existing structures, a comprehensive lead-based paint materials survey would be performed to the written satisfaction of the City of Los Angeles Building and Safety Division. Should lead-based paint materials be identified, standard handling and disposal practices would be implemented pursuant to OSHA regulations; thus protecting the public safety.

(c) Underground Storage Tank

Three small USTs were identified on a substructure map within the sidewalk along West 11th Street and South Olive Street adjacent to the Project Site. A previous geophysical survey conducted in 2014 identified the potential for USTs to be present. During Project Site reconnaissance, an asphalt patch was observed in the sidewalk near one of the three possible “tank” locations noted in the substructure maps (Appendix F of the *Phase I/II ESA*). Earthwork may occur under the sidewalk associated with construction of the Project, including tie-backs and utility work.

Earthwork that may occur in the vicinity of the potential tank locations must account for the possibility of encountering such tanks. Such tanks may represent a source of residual contamination due to their previous containment from petroleum products (e.g., materials associated with the Site’s previous automotive uses) or other hazardous chemicals. To avoid contact with, or release of, hazardous materials) associated with removal of such potential USTs and related infrastructure, Mitigation Measure **HAZ-MM-2** is included in Subsection 3.f, Mitigation Measures, below. This mitigation measure requires that earthwork activities in the vicinity of potential USTs be preceded by potholing prior to construction to verify the potential occurrence and characteristics of the Site conditions. If a UST is identified, a tank removal permit would be submitted to the LAFD; and the UST would be abandoned and removed per regulatory requirements; thus avoiding hazards to the public safety.

(d) *Subsurface Soil and Soil Gas Contamination*

As part of the Phase I/II ESA, testing was conducted to assess the presence or absence of subsurface impacts to soil and soil vapor. Soil testing results indicated that VOCs were not detected in the samples above the laboratory detection limits. Metals were also not detected above applicable screening levels in the soil samples analyzed. The soil gas samples reported low levels of PCE and BTEX above the laboratory detection limits; however, the concentrations were below the USEPA Regional Screening Levels for a residential property. Even so, during excavation of the Project Site, Project construction could theoretically encounter potentially impacted or impacted soils.

While subsurface soil and soil gas vapors have tested under applicable screening levels, to avoid the risk of potentially impacted or impacted soils that may be encountered at the Project Site during construction activities, Mitigation Measure, **HAZ-MM-1** has been recommended in Subsection 3.f, Mitigation Measures, below, which requires preparation of a Soils Management Plan (SMP) to ensure that all areas of the Project Site have been properly evaluated and to provide added guidance to contractors for appropriate screening, and management of potentially impacted or impacted soils that may be encountered during grading and excavation activities.

(e) *Summary of Construction Impacts*

As described above, potential impacts regarding ACMs and LBP materials would be controlled through the implementation of regulatory measure that would protect the public safety. Potential hazardous impacts due to the potential presence of USTs and/or subsurface soil and gas vapors would be avoided through the implementation of two proposed mitigation measures. **Therefore, the potential construction impacts regarding hazardous impact to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant with the implementation of mitigation measures.**

(2) Operation

(a) *On-Site Hazardous Materials*

As discussed earlier, operation of the Project would involve common activities associated with residential and retail and/or restaurant uses, along with activities associated with recreational and community facilities. No hazardous materials would be utilized in day to day operations of the Project other than the typical household, commercial, vehicle, pool and spa, and landscaping maintenance materials. These materials would be used be in small quantities and in accordance with the manufacturer's instructions for use, storage and disposal of such products; thus protecting the public safety.

(b) *Methane*

The Project Site is located within a Methane Zone. These areas can pose a risk of methane intrusion emanating from geologic formations. Due to the potential

environmental risk associated with a Methane Zone, the Project would be subject to developmental regulations pertaining to ventilation and methane gas detection systems that are mandated by the City. Development would occur per the provisions of the City of Los Angeles Building Code, Chapter 71 Methane Mitigation Standards Ordinance. This ordinance provides information describing the installation procedures, design parameters and test protocols for methane gas mitigation systems. More specifically, the Methane Mitigation Standards ordinance defines requirements for site testing, methane mitigation systems, and ventilation systems. Site Design Levels are categorized as Level I through Level V. Site Design Levels are determined by the Design Methane Concentration, and the highest concentration of methane gas, and the Design Methane Pressure, the highest pressure of methane gas, as determined by site testing. All of the methane mitigation systems work by providing a barrier to methane penetration into buildings where they could lead to hazardous conditions, and directing the methane away from the building and into the atmosphere. Depending on the Site conditions the required gas mitigation system would require some combination of passive features (which allow the methane to move through natural rising characteristics) such as membranes with vent pipes of varied dimensions and design parameters depending on the methane concentration to systems with more active features such as alarms and mechanical extraction mechanisms.

A methane survey was conducted in November 2014 to a maximum depth of 45 feet bgs. Methane was not reported above the laboratory reporting limit in any location and pressure readings did not exceed 0.0 inches of water; therefore, the Project Site was determined to be Level 1, and at a minimum a soil vapor barrier and passive venting system would be required in accordance with the City of Los Angeles Methane Mitigation Standards Ordinance. The Project as proposed would include six levels of subterranean parking that would extend to 54+ feet bgs. While the Project would result in a deeper excavation depth than tested in the 2014 methane survey, the Project would be subject to the design and permitting requirements established by LADBS as defined in LAMC Section 91.7102 for a Project Site located within a Methane Zone. As such, an updated methane survey would be conducted and an appropriate methane mitigation design would be required by the City of Los Angeles Building Code, Chapter 71 Methane Mitigation Standards Ordinance. The Methane Mitigation Standards ordinance defines requirements for site testing, methane mitigation systems, and ventilation systems. Compliance with City requirements would ensure that the Project would not result in reasonably foreseeable upset or accident conditions involving the release of methane gas into the environment.

(c) *Subsurface Soil and Soil Gas Contamination*

Soils testing results indicated that VOCs were not detected in the samples above the laboratory detection limits. Metals were not detected above applicable screening levels in the soil samples analyzed. The soil gas samples reported low levels of PCE and BTEX above the laboratory detection limits. However, the concentrations were below the EPA Regional Screening Levels for a residential property.

(d) Summary of Operations Impacts

As described above, potential operation impacts regarding the use of on-site hazardous materials, potential methane emissions and potential emissions due to the presence of subsurface soil and gas vapors would not occur due to a lack of related hazardous conditions at the Project Site; and/or through compliance with regulatory measures to address hazardous materials that may be present. **Therefore, the potential operation impacts regarding hazardous impact to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant. No mitigation measures are required.**

Threshold c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Less than Significant Impact with the implementation of Mitigation Measures.

(1) Construction

The schools closest to the Project Site are Los Angeles Unified School District's (LAUSD's) Los Angelitos Early Education Center located at 915 S. Olive Street, and LA Child Care and Development Council at 1001 S Hope Street, both located approximately 0.17 miles northwest of the Project Site. Construction of the Project would also involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, cleaning agents, fuels, and oils. However, such construction materials would be used, stored, and disposed of in accordance with applicable laws, regulations, and manufacturers' instructions. As discussed above, construction materials are not expected to cause risk to the public or nearby schools.

Notwithstanding, the discussion of impacts for Threshold b, above, identifies materials at the Project Site that could potentially be released due to construction activity. The potential threat from such release would be primarily confined to the Project Site and its immediately adjacent area. However, a truck hauling contaminated material from the Project Site could pose a threat to the nearby schools if the hazardous materials were not properly secured. To minimize the risk associated with impacted soils that may be encountered at the Project Site during grading and excavation activities, **HAZ-MM-1**, listed in Subsection f) below, includes the preparation of a SMP to protect the safe transit of hazardous materials. The SMP would include guidance to contractors for appropriate screening, and management of potentially impacted or impacted soils that may be encountered during grading and excavation activities. **As such, construction of the Project would not expose schools within one-quarter mile to hazardous emissions or to the effects of handling of hazardous or acutely hazardous materials, substances, or waste. Therefore, with implementation of HAZ-MM-1, potentially significant impacts would be avoided.**

(2) Operation

As discussed above no hazardous materials would be used in day to day operations of the Project other than the typical household, commercial, vehicle, pool and spa, and landscaping maintenance materials. The use of these materials would be in small quantities and in accordance with the manufacturer's instructions for use, storage and disposal of such products. **Given the nature of the materials that would be used on the Project Site, and regulatory requirements, there would be no hazardous emissions emitted or acutely hazardous materials, substances, or waste used within one-quarter mile of an existing or proposed school. Therefore, impacts would be less than significant and no mitigation measures are required.**

Threshold d) Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
Less than Significant Impact with Mitigation.

As discussed earlier, as part of the Phase I ESA, a search was conducted of Federal, State, and local environmental database records that meet Cortese List requirements for potential listing of the Project Site and where practicable, adjoining properties and nearby properties or surrounding areas within approximate minimum search distances from the Project Site. According to the regulatory agency hazardous materials database search conducted for the Phase I/II ESA, the Project Site is listed on one such database:

- **Hazardous Waste Information System (HAZNET) and FINDS Database:** This listing is for the 1035 South Olive C I Printing Company that is listed for the use of halogenated solvents, photochemical/photo processing waste, and unspecified solvent mixtures uses at the Site. No violations were listed for the use or disposal of these materials. The database indicates that materials were disposed of using a treatment tank, recycler and solvent recovery.

(1) Construction

As discussed above, although the database indicates that no violations were listed for the disposal or use of these materials, due to the historical uses at 1035 South Olive Street (wood working, spray painting, machine shop, and printing purposes) and the presence of 1-gallon containers of printing ink, one 55-gallon drum of photo processing waste, and one 55-gallon drum of Solvit QD related to C.I. Printing that were observed at 1035 South Olive Street, a soil sampling analysis was conducted as part of the Phase I/II ESA. The results of the soil sampling analysis did not identify TPH, VOCs, and metals above laboratory reporting limits and/or applicable screening levels.

Therefore, construction would not create a significant hazard, caused in whole or in part from exacerbation of existing environmental conditions. In the event construction were to encounter hazardous materials in the soil, unexpectedly, however, Mitigation Measure **HAZ-MM-1** is identified, including the preparation of a SMP. The SMP would include

guidance to contractors for appropriate screening, and management of potentially impacted or impacted soils that may be encountered during grading and excavation activities. **Therefore, with mitigation, Project construction would not exacerbate potentially existing site conditions (hazardous soils), in a manner that would create a significant hazard to the public or the environment; impacts would be less than significant.**

(2) Operation

With the proposed mitigation (**HAZ-MM-1**), hazardous conditions identified pursuant to Government Code Section 65962.5 would be removed from the Project Site prior to operations. No hazardous materials would be utilized in day to day operations of the Project other than the typical household, commercial, vehicle, pool and spa, and landscaping maintenance materials. These materials are not listed on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and therefore Project operations would not require future listing of the Project Site on such a list. **Project operation would not create a significant hazard to the public or the environment caused in whole or in part from the Project's exacerbation of existing environmental conditions. No mitigation measures are required for Project operations.**

Threshold e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project result in a safety hazard or excessive noise for people residing or working in the project area? No Impact.

As discussed in the *Initial Study* (included in Appendix A of this Draft EIR) and Chapter VI, *Other CEQA Considerations*, of this Draft EIR, the Project Site is not located within an airport land use plan or within two miles of a public use airport. **Therefore, the Project would not be subject to effects pertaining to airport safety hazards or excessive noise. The Project would create no impacts and no mitigation is required.**

Threshold f) *Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?* Less than Significant Impact.

(1) Construction

No City-designated Disaster Routes border the Project Site; the closest such routes are Olympic Boulevard located one-half block to the north and Broadway located two blocks to the east.¹² These routes would be close enough to the Project Site to potentially be affected by backup congestion associated with the Project's construction activity. However, as provided in Section IV. M, *Transportation and Traffic*, in this Draft EIR, a Construction Traffic Management Plan and a Worksite Traffic Control Plan, TRAF-PDF-1, would include procedures for controlling potential effects of construction along the Project Site edges and construction vehicles and equipment entering the Project Site. Procedures would also include provision to adjust Project Site activity in the event of emergency/evacuation incidents. Therefore, policy or procedural changes to an existing emergency response plan or evacuation plan would not be required due to construction of the Project. **As such, construction of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant. No Mitigation Measures are required.**

(1) Operation

The Project would not include a land use that would constitute a potential hazard to the community (such as an airport, oil refinery, or chemicals plant), nor would it close any existing streets or otherwise represent a significant impediment to emergency response and evacuation of the local area. Therefore, the Project's proposed land uses would not by their nature interfere with an adopted emergency response plan or emergency evacuation plan.

The Project Site is located in an established urban area that is well served by the surrounding roadway network, and multiple routes exist in the area for emergency vehicles and evacuation. Site accessibility would be approved by the LAFD and Project accessibility features would not adversely affect the delivery of emergency services in the Project vicinity.

No policy or procedural changes to an existing emergency response plan or evacuation plan would be required due to operation of the Project. Furthermore, during an unanticipated disaster event, City and County agencies (i.e., Police and Fire Departments) would implement operational protocols, as well as plans and programs, on a case by-case basis to facilitate emergency evacuations and/or response, which would consider traffic conditions at the time of the emergency. In such instances, traffic would

¹² City of Los Angeles, Department of City Planning, Safety Element of the Los Angeles City General Plan, adopted November 26, 1996, Exhibit H – Critical Facilities & Lifeline Systems, <http://cityplanning.lacity.org/cwd/gnlpln/safetyelt.pdf>. Accessed on January 11, 2018.

be routed along the City's disaster routes, as determined appropriate, by the applicable responding City agencies.

As Project operations would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, impacts would be less than significant and no mitigation is required.

Threshold g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? No Impact.

As discussed in the *Initial Study* (included in Appendix A of this Draft EIR) and Chapter VI *Other CEQA Considerations*, of this Draft EIR, the Project Site is not located within an area subject to wildland fires; and therefore, the Project would create no impacts regarding exposure to wildland fires. Subsequent to preparation of the Initial Study, the Governor's Office of Planning and Research added a new Appendix G Question pertaining to wildfire hazards that elaborates on the considerations that should be taken into account in addressing the Appendix G questions. That new Question, as an added environmental topic, is discussed in *Chapter VI, Other CEQA Considerations*, of this Draft EIR. **The added information there also leads to the conclusion the Project Site is not located within an area subject to wildfires and further supports the conclusion that the Project would result in no direct or indirect impacts in regard to wildland/wildfire hazards.**

e) Cumulative Impacts

(1) Construction

Many of the City-identified related projects listed in Table III-1 in Chapter III, *General Description of Environmental Setting*, of this Draft EIR would use, handle, store, and/or transport hazardous materials or require demolition of structures containing such materials. Related projects would be required to use, store, and transport all potentially hazardous materials in accordance with the manufacturers' instructions and handle materials in accordance with federal, State, and local health and safety standards and regulations. Compliance with existing standards and regulations would ensure that the related projects would not result in significant impacts to the public or the environment through the routine transport, storage, use, or handling of hazardous materials.

Most of the related projects include mixed use and residential development that are unlikely to include hazardous materials. In the event any of the related projects is located on a site that is list of hazardous material sites compiled pursuant to Government Code Section 65962.5, that related project would be required to comply with existing Federal, State, and local regulations related to hazardous material sites, including cleanup sites, and hazardous materials generators. As such, cumulative development would account for clean-up of many existing hazardous conditions and would not result in cumulatively significant impacts.

As described in the Existing Conditions subsection above, the Phase I/II ESA for the Project identified potentially hazardous conditions in the vicinity of the Project Site. No on-site subsurface contamination from off-site sources (such as from gas station or industrial facility USTs) was identified in the Phase I/II ESA. The Phase I/II ESA analysis concluded that based on distance, topography, assumed groundwater gradient, current regulatory status, and/or the absence of reported releases, none of the sites listed in agency databases in the vicinity of the Project Site is considered to represent a likely past, present or material threat of release that would be present or adversely affect the Project Site. Therefore, there would be no cumulative effects caused by the Project in concert with nearby related projects. If an accident or upset regarding hazardous material were to occur at another development site, the effects of such an incident would be an impact of that development, but not one that the Project would cumulatively contribute to. The Project would mitigate its potential impacts and would not contribute to cumulative effects.

Due to application of regulatory measures with related projects and the absence of existing conditions at off-site related project locations that would contribute to cumulative effects at the Project Site, and the Project's mitigation of potential contributions to cumulative impacts, the Project impacts with regard to hazards and hazardous materials would not be cumulatively considerable, and cumulative impacts from construction would be less than significant.

(2) Operations

Operation of new related projects can reasonably be expected to involve the limited use of potentially hazardous materials typical of those uses in residential and commercial developments, including cleaning agents, paints, pesticides and other materials used for landscaping. All future development would be subject to the same federal, state, and local laws, rules and regulations related to hazards. Some of the related projects may also include the use of hazardous materials within one-quarter mile of a school. However, those related projects would be subject to environmental review to evaluate potential impacts from hazardous material releases within one-quarter mile of a school, and provide added mitigation if needed. As noted above, the Project would not have impacts at schools within a one-quarter mile area (i.e., Los Angelitos Early Education Center located at 915 S. Olive Street and LA Child Care and Development Council at 1001 S Hope Street) and therefore, the Project would not add to potential cumulative effects at these locations.

Some of the related projects also would be constructed within Methane Zones. These related projects would be subject to regulations pertaining to ventilation and methane gas detection systems mandated by the City pursuant to Ordinance No. 175790 and the City of Los Angeles Building Code, Chapter 71 Methane Mitigation Standards Ordinance. This ordinance provides information describing the installation procedures, design parameters and test protocols for methane gas mitigation systems. More specifically, the Methane Mitigation Standards ordinance defines requirements for site testing, methane mitigation

systems, and ventilation systems. Site Design Levels are categorized as Level I through Level V. Each related project subject to methane exposure would have a methane mitigation system implemented within its building that would be based on the combination of passive and active features (e.g. membranes, piping, fans, etc.) for collecting and moving methane away from the building in a manner that would meet the specifications for protection of public safety given the unique characteristics of the Site.

Operation of related projects would generate traffic in the Project vicinity and would result in some modifications to access from the streets that surround the Project Site. However, any changes to access and building configurations would comply with applicable fire code requirements for emergency evacuation, including proper emergency exits for patrons, employees, and potential residents. All access and circulation plans would be subject to review and approval by the LAFD; and would be developed to meet City standards for emergency access. Generally, mixed use related projects of the type identified in the related projects list and those in the vicinity of the Project Site would be developed within the existing urban grid and would not require alterations to emergency access routes. If a more distant related project affected emergency access routes, that project might include new alternative provisions for emergency access, and in any case would not contribute to cumulative effects in concert with the Project.

Based on the above, the Project's impacts relating to operational hazards and hazardous materials would not be cumulatively considerable, and cumulative impacts would be less than significant.

f) Mitigation Measures

As discussed above, Project excavation could encounter residual soil contaminants and USTs which could result in a release of hazardous materials into the environment and/or expose workers to hazardous materials. As a result, Mitigation Measures HAZ-MM-1, and HAZ-MM-2 are provided below to address these potential impacts, should they occur.

HAZ-MM-1: A Soil Management Plan (SMP) shall be prepared that would provide guidance to contractors for appropriate handling, screening, and management of potentially impacted or impacted soils from historical operations that may be encountered at the Project Site during grading and excavation activities. These procedures would include training for construction personnel on the appropriate procedures for identification of suspected impacted soils; requirements for testing and collection of potentially contaminated soils; segregation of potentially impacted soils; and applicable soil handling and disposal procedures. The SMP shall also contain procedures to be followed in the event that undocumented subsurface features of potential environmental concern (e.g., USTs, abandoned oil wells, sumps, hydraulic lifts, clarifiers, buried drums) are encountered during the excavation grading, and/or other earthmoving activities. These procedures would include safety training, testing protocols, decontamination and decommission

standards, and notification to the appropriate relevant regulatory oversight agency or agencies.

The SMP would also include procedures for handling and transportation of soils with respect to nearby sensitive receptors, such as nearby residential uses, religious uses, and schools. In accordance with SCAQMD Rule 1166 requirements, impacted soil removed from the Project Site shall comply with the following:

- Be transported to an approved treatment/disposal facility.
- When loading into trucks is completed, and during transportation, no excavated material shall extend above the sides or rear of the truck or trailer.
- Prior to covering/tarpping, loaded impacted soil shall be wetted by spraying with dust inhibitors.
- The trucks or trailers shall be completely covered/tarped prior to leaving the Project Site to prevent particulate emissions to the atmosphere.
- The exterior of the trucks (including the tires) shall be cleaned off prior to the trucks leaving the excavation location.

HAZ-MM-2 USTs: For earthwork activities occurring within the sidewalk in the vicinity of West 11 Street and South Olive Street, potholing prior to construction is required to assess if any Underground Storage Tanks (USTs) are present and to reduce the potential for construction delays. If a UST is identified, a tank removal permit and oversight of the removal shall be submitted to the Los Angeles Fire Department.

g) Level of Significance After Mitigation

Each of the proposed mitigation measures establishes directions and/or procedures for the Project Applicant to follow in order to safely remove any potential hazardous materials and/or conditions in a manner that is comprehensive and consistent with regulatory standards and procedures. Through application of the appropriate regulatory procedures and implementation of HAZ-MM-1 (contaminated soils), and HAZ-MM-2 (USTs), impacts associated with hazards and hazardous materials would be reduced to a less than significant level.

IV.H Hydrology and Water Quality

1. Introduction

This section analyzes the Project's potential impacts on hydrology (drainage flows), surface water quality, groundwater levels and groundwater quality. The analysis is primarily based on the *Preliminary Hydrology Study*¹ and the *Preliminary LID Report*.² prepared for the Project and included in their entirety in Appendix I-1 and I- 2 of this Draft EIR, respectively. It is also based on information included in the *Preliminary Geotechnical Report* for the Project (Geotechnical Report), which is provided in Appendix F of this Draft EIR;³ and the *Phase I and Limited Phase II Environmental Site Assessment Update* (Phase I/II ESA), that is provided in Appendix H of this Draft EIR.⁴

2. Environmental Setting

a) Regulatory Framework

(1) Federal

(a) *National Flood Insurance Program*

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards.⁵ FEMA provides flood insurance rate maps (FIRMs) for local and regional planners to promote sound land use and development practices, by identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as flood insurance studies (FIS). Using information gathered in these studies, FEMA engineers and cartographers delineate special flood hazard areas (SFHA) on FIRMs.

The Flood Disaster Protection Act requires owners of all structures in identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally-related financial assistance, such as mortgage loans from federally-insured lending

¹ David Evans and Associates, Inc., Preliminary Hydrology Study for APN 5139-010-001; - 002; -008; - 010; -011-, 1045 South Oliva Street, Los Angeles, CA 90015, February 27, 2018.

² David Evans and Associates, Inc., Preliminary LID Report for APN 5139-010-001; -002; -008; -010; - 011, 1045 South Oliva Street, Los Angeles, CA 90015, February 27, 2018.

³ GeoDesign Incorporated, Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018.

⁴ Leighton and Associates, Inc., Phase I and Limited Phase II Environmental Site Assessment Update for 1033 to 1057 South Olive Street, January 3, 2018.

⁵ The National Flood Insurance Act of 1968, as amended, and The Flood Disaster Protection Act of 1973, 42 U.S.C. 4001 et. seq., <https://www.fema.gov/media-library/assets/documents/21010>. Accessed August 8, 2018.

institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA.

(b) Clean Water Act

The Clean Water Act (CWA), formerly known as the Federal Water Pollution Control Act, was first introduced in 1948, with major amendments in the 1960s, 1970s and 1980s⁶. The CWA authorizes Federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. Amendments to the CWA in 1972 established the National Pollutant Discharge Elimination System (NPDES) permit program, which prohibits discharge of pollutants into the nation's waters without procurement of a NPDES permit from the U. S. Environmental Protection Agency (USEPA). Although federally mandated, the NPDES permit program is generally administered at the State level.

The CWA was amended in 1987 to require the USEPA to create specific requirements for discharges. In response to the 1987 amendments to the CWA, Phase I of the USEPA NPDES Program required NPDES permits for: (1) Municipal Separate Storm Sewer Systems (MS4) Permit generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) eleven specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. As of March 2003, Phase II of the NPDES Program extended the requirements for NPDES permits to numerous small municipal separate storm sewer systems, construction sites of one to five acres, and industrial facilities owned or operated by small municipal separate storm sewer systems, which were previously exempted from permitting.

(c) Federal Antidegradation Policy

The Federal Antidegradation Policy requires states to develop statewide antidegradation policies and identify methods for implementing them⁷. Pursuant to the Code of Federal Regulations, state antidegradation policies and implementation methods must, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

⁶ United States Environmental Protection Agency, Clean Water Act, November 2002, <https://www.epa.gov/sites/production/files/2017-08/documents/federal-water-pollution-control-act-508full.pdf>. Accessed July 2, 2018.

⁷ United States Environmental Protection Agency, Water Quality Standards Handbook- Chapter 4: Antidegradation, 2010. <https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter4.pdf>. Accessed July 2, 2018.

(d) *Safe Drinking Water Act*

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of the Nation's drinking water.⁸ Under SDWA, the USEPA sets standards for drinking water quality and oversees the states, localities, and water suppliers that implement those standards. SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells.

(2) *State*

(a) *Porter-Cologne Water Quality Act (California Water Code)*

The Porter-Cologne Water Quality Control Act established the legal and regulatory framework for California's water quality control⁹. The California Water Code authorizes the State Water Resources Control Board (SWRCB) to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

Under the California Water Code, the State of California is divided into nine regional water quality control boards (RWQCBs), which govern the implementation and enforcement of the California Water Code and the CWA. The Project Site is located within Region 4, also known as the Los Angeles Region (LARWQCB). The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. Each RWQCB is required to formulate and adopt a Water Quality Control Plan or Basin Plan for its region. The Basin Plan must adhere to the policies set forth in the California Water Code and established by the SWRCB. In this regard, the LARWQCB developed the Los Angeles Basin Plan in August 29, 2014 for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan). The RWQCB is also given authority to issue waste discharge requirements, enforce actions against stormwater discharge violators, and monitor water quality.¹⁰ In California, the NPDES stormwater permitting program is administered by the SWRCB.

(b) *California Antidegradation Policy*

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California was adopted by the SWRCB in 1968.¹¹ Unlike the Federal Antidegradation Policy, the California Antidegradation Policy

⁸ United States Code, Title 42 – The Public Health and Welfare- Chapter 6A Public Health and Service, Safe Drinking Water Act. 2006 Edition, Supplement 4, <https://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/pdf/USCODE-2010-title42-chap6A-subchapXII.pdf>. Accessed July 2, 2018.

⁹ State Water Resources Control Board, Porter-Cologne Water Quality Control Act, January 2018, https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf. Accessed July 2, 2018.

¹⁰ United States Environmental Protection Agency, Clean Water Act, December 2016, <https://www.epa.gov/compliance/state-review-framework-compliance-and-enforcement-performance>.

¹¹ State Board Resolution No. 68-16.

applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

(c) *California Toxics Rule*

In 2000, the California Environmental Protection Agency (Cal-EPA) promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State¹². Cal-EPA promulgated this rule based on Cal-EPA's determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the LARWQCB as having beneficial uses protective of aquatic life or human health.

(d) *Sustainable Groundwater Management Act of 2014*

The Sustainable Groundwater Management Act of 2014 (SGMA) requires the designation of groundwater sustainability agencies (GSAs) by one or more local agencies and the adoption of groundwater sustainability plans (GSPs) for basins designated as medium- or high-priority by the California Department of Water Resources (DWR). SGMA grants new powers to GSAs, including the power to adopt rules, regulations, ordinances, and resolutions; regulate groundwater extractions; and to impose fees and assessments. SGMA also allows the State Water Resources Control Board (SWRCB) to intervene if local agencies will not or do not meet the SGMA requirements.

(3) Regional

(a) *Water Replenishment District of Southern California*

The City of Los Angeles is included within the Water Replenishment District of Southern California (WRD). The WRD service area is categorized as a High Priority basin; and pursuant to the SGMA must either (a) form a groundwater sustainability agency (GSA) to prepare and submit a groundwater sustainability plan; or directly submit an Alternative Analysis in lieu of forming a GSA. The WRD, in conjunction with key stakeholders inclusive of the Los Angeles Department of Water and Power (LADWP), has prepared and submitted an Alternative Analysis that satisfies the requirements of the SGMA.¹³ The Alternative Analysis demonstrates compliance with applicable portions of the California Water Code and provides adequate information to show that the applicable, underlying

¹² United States Environmental Protection Agency, Water Quality Standards, Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. February 2001, <https://www.epa.gov/wqs-tech/water-quality-standards-establishment-numeric-criteria-priority-toxic-pollutants-state>. Accessed September 2019.

¹³ Board of Directors of the Water Replenishment District of Southern California, Resolution No. 16-1048, December 8, 2016, file:///C:/Users/gschalman/Downloads/161208%20Signed%20Resolution%2016-1048%20-%20Approve%20Submittal%20of%20Alternative%20to%20DWR.pdf. Accessed February 26, 2019.

Central Subbasin has operated within its sustainable yield over a period of at least 10 years; and that the Alternative Analysis satisfies SGMA's objectives by promoting sustainable management of the groundwater in the Central Subbasin.

(b) County of Los Angeles Hydrology Manual

Drainage and flood control in the City of Los Angeles (City) are subject to review and approval by the Department of Public Works, Bureau of Engineering (Bureau of Engineering). Storm drains within the City are constructed by both the City and the Los Angeles County Flood Control District (County Flood Control). The County Flood Control constructs and has jurisdiction over regional facilities such as major storm drains and open flood control channels, while the City constructs and is responsible for local interconnecting tributary drains.

Per the City's Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County Department of Public Works' Hydrology Manual as its basis of design for storm drainage facilities.¹⁴ The Department of Public Works' Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event. The County also limits the allowable discharge into existing storm drain (MS4) facilities based on the County's MS4 Permit which is enforced on all new developments that discharge directly into the County's MS4 system.

Drainage and flood control structures and improvements within the City are subject to review and approval by the City's Department of Public Works and Department of Building and Safety. As required by the Department of Public Works, all public storm facilities must be designed in conformity with the standards set forth by Los Angeles County. The Department of Public Works reviews and approves MS4 plans prior to construction. Any proposed increases in discharge directly into County facilities, or proposed improvements of County-owned MS4 facilities, such as catch basins and drainage lines, require approval from County Flood Control to ensure compliance with the County's Municipal NPDES Permit requirements.

(c) NPDES Permit Program

As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs. SWRCB Order No. 2009-0009-DWQ, the (General Permit), was adopted on September 2, 2009. This NPDES permit establishes a risk-based approach to stormwater control requirements for construction projects.

¹⁴ Los Angeles County Department of Public Works, Hydrology Manual, January 2006, http://dpw.lacounty.gov/wrd/Publication/engineering/2006_Hydrology_Manual/2006%20Hydrology%20Manual-Divided.pdf. Accessed January 2018.

(i) *Construction: Stormwater Pollution Prevention Plan*

For all construction activities disturbing one acre of land or more, California mandates the development and implementation of Storm Water Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of best management practices (BMPs) to prevent discharges of water pollutants to surface or groundwater. The SWPPP also charges Owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit.¹⁵

The SWRCB adopted a General Permit for Stormwater Discharges from Construction Activities on September 2, 2009. The Construction General Permit regulates construction activity including clearing, grading, and excavation of areas one acre or more in size and prohibits the discharge of materials other than stormwater, authorized non-stormwater discharges, and all discharges that contain a hazardous substance, unless a separate NPDES permit has been issued for those discharges.

To obtain coverage under the Construction General Permit, a developer is required to file a Notice of Intent (NOI) with the appropriate RWQCB and provide proof of the NOI prior to applying for a grading or building permit from the local jurisdiction, and must prepare a State SWPPP that incorporates the minimum BMPs required under the permit as well as appropriate project-specific BMPs. The SWPPP must be completed and certified by the developer and BMPs implemented prior to the commencement of construction, and may require modification during the course of construction as conditions warrant. When project construction is complete, the developer is required to file a Notice of Termination with the RWQCB certifying that all the conditions of the Construction General permit, including conditions necessary for termination, have been met.

(ii) *NPDES Permit for Dischargers of Groundwater from Construction and Project Dewatering*

A NPDES Permit for dewatering discharges was adopted by the LARWQCB on June 6, 2013 (Order No. R4-2013-0095, General NPDES Permit No. CAG994004). Similar to the Construction General Permit, to be authorized to discharge under this Permit; the developer must submit a NOI to discharge groundwater generated from dewatering operations during construction in accordance with the requirements of this Permit.¹⁶ General NPDES Permit No. CAG994004 expired July 6, 2018, however it shall continue

¹⁵ State Water Resources Control Board, <https://www.waterboards.ca.gov/waterissues/programs/stormwater/construction.shtml>. Accessed January 2018.

¹⁶ Los Angeles Regional Water Quality Control Board, Order No. R4-2013-0095, General NPDES Permit No. CAG994004, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, June 6, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/permits/general/npdes/r4-2013-0095/Dewatering%20Order.pdf. Accessed May 7, 2018.

in full force and effect until the Regional Water Board adopts a new order.¹⁷ In accordance with the NOI, among other requirements and actions, the discharger must demonstrate that the discharges shall not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters, perform reasonable potential analysis using a representative sample of groundwater or wastewater to be discharged. The discharger must obtain and analyze (using appropriate methods) a representative sample of the groundwater to be treated and discharged under the Order. The analytical method used shall be capable of achieving a detection limit at or below the minimum level. The discharger must also provide a feasibility study on conservation, reuse, and/or alternative disposal methods of the wastewater and provide a flow diagram of the influent to the discharge point.¹⁸

*(iii) Operation: Los Angeles County Municipal Stormwater
NPDES Program*

The County of Los Angeles (County) and the City are two of the Co-Permittees under the Los Angeles County MS4 Permit (Order No. R4-2012-0175, NPDES Permit No. CAS004001). The Los Angeles County MS4 Permit has been determined by the State Water Resources Control Board to be consistent with the requirements of the Clean Water Act and the Porter-Cologne Act for discharges through the public storm drains in Los Angeles County to statutorily-defined waters of the United States (33 United States Code [USC] §1342(p); 33 CFR Part 328.11). On September 8, 2016, the RWQCB, Los Angeles Region, amended the Los Angeles County MS4 Permit to incorporate modifications consistent with the revised Ballona Creek Watershed Trash Total Maximum Daily Load (TMDL) and the revised Los Angeles River Watershed Trash TMDL, among other TMDLs incorporated into the Los Angeles County MS4 Permit and the Basin Plan for the Coastal Waters of Los Angeles and Ventura Counties.

Under the amended Los Angeles County MS4 Permit, the County and City are required to implement development planning guidance and control measures that control and mitigate stormwater quality and runoff volume impacts to receiving waters as a result of new development and redevelopment. The County and the City also are required to implement other municipal source detection and elimination programs, as well as maintenance measures.

¹⁷ Los Angeles Regional Water Quality Control Board, Order No. R4-2013-0095, General NPDES Permit No. CAG994004, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, June 6, 2013, page 28, http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/permits/general/npdes/r4-2013-0095/Dewatering%20Order.pdf. Accessed May 7, 2018.

¹⁸ Los Angeles Regional Water Quality Control Board, Order No. R4-2013-0095, General NPDES Permit No. CAG994004, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, June 6, 2013, page 28, http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/permits/general/npdes/r4-2013-0095/Dewatering%20Order.pdf. Accessed May 7, 2018.

Under the Los Angeles County MS4 Permit, permittees are required to implement a development planning program to address stormwater pollution. This program requires project applicants for certain types of projects to implement a Low Impact Development (LID) Plan (which replaces the former Standard Urban Stormwater Mitigation Plan [SUSMP]). The purpose of the LID Plan is to reduce the discharge of pollutants in stormwater by outlining BMPs, which must be incorporated into the design of new development and redevelopment. These treatment control BMPs must be sufficiently designed and constructed to treat or retain the greater of an 85th percentile rain event or first 0.75 inch of stormwater runoff from a storm event.

The Los Angeles County MS4 Permit (Part VI.D.7.c, New Development/Redevelopment Project Performance Criteria) includes design requirements for new development and substantial redevelopment. These requirements apply to all projects that create or replace more than 5,000 square feet of impervious cover. Where redevelopment results in an alteration to more than 50 percent of impervious surfaces of a previously existing development and the existing development was not subject to post-construction stormwater quality control requirements, the entire project would be subject to post-construction stormwater quality control measures.

The Los Angeles County MS4 Permit contains provisions for implementation and enforcement of the Stormwater Quality Management Program. The objective of the Stormwater Quality Management Program is to reduce pollutants in urban stormwater dischargers to the “maximum extent practicable,” to attain water quality objectives and protect the beneficial uses of receiving waters in Los Angeles County. Special provisions are provided in the County’s MS4 Permit to facilitate implementation of the Stormwater Quality Management Program. In addition, the Los Angeles County MS4 Permit requires that permittees implement a LID Plan, as discussed above, that designates BMPs that must be used in specified categories of development projects to infiltrate water, filter, or treat stormwater runoff; control peak flow discharge; and reduce the post-project discharge of pollutants into stormwater conveyance systems. In response to the County’s MS4 Permit requirements, the City adopted Ordinance No. 173,494 (LID Ordinance), as authorized by Section 64.72 of the LAMC.

The City supports the requirements of the Los Angeles County MS4 Permit through the City of Los Angeles’ *Development Best Management Practices Handbook, Low Impact Development Manual, Part B: Planning Activities* (5th edition, May 2016) (“LID Handbook”)¹⁹ which provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City’s Stormwater Program. The LID Handbook assists developers with the selection, design, and incorporation of stormwater source

¹⁹ The 4th edition of the Best Management Practices Handbook, Part B, revised the 3rd edition to reflect the adopted Low Impact Development (LID) requirements that took effect May 12, 2012. Source: City of Los Angeles Development Best Management Practices Handbook, Low Impact Development Manual, Part B, http://www.lastormwater.org/wp-content/files_mf/lidhandbookfinal62212.pdf. Accessed July 2, 2018.

control and treatment control BMPs into project design plans, and provides an overview of the City's plan review and permitting process.

The City implements the requirement to incorporate stormwater BMPs, including LID BMPs through the City's plan review and approval process. During the review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

(d) *Los Angeles River Watershed Master Plan*

The Los Angeles River Master Plan process recognizes the river as a body of resources of regional importance and that those resources must be protected and enhanced. In July 1991, the Los Angeles County Board of Supervisors directed the Departments of Public Works, Parks and Recreation and Regional Planning to undertake a planning effort and to coordinate all interested public and private parties in the planning. An Advisory Committee consisting of cities, agencies, and citizen group representatives was formed in September 1992. The Los Angeles River Master Plan was adopted in 1996, and is intended to maintain the river as a resource that provides flood protection and opportunities for recreational and environmental enhancement, improves the aesthetics of the region, enriches the quality of life for residents, and helps sustain the economy of the region²⁰. Environmental goals of the Watershed Master Plan are to preserve, enhance, and restore environmental resources in and along the river, including improving water quality and cleanliness of the river. Soil contamination on riverfront lands that have supported railroads and other industries is cited as an issue of concern. An effort is now underway to modernize the existing plan, synthesize more recent ideas for the river and bring a coherent and comprehensive vision to the transformation and reimagining of the Los Angeles River.²¹

(4) Local

(a) *Los Angeles Municipal Code Section 62.105, Construction "Class B" Permit*

Proposed drainage improvements within the street right of way or any other property owned by, to be owned by, or under the control of the City, requires the approval of a B-permit (Los Angeles Municipal Code [LAMC] Section 62.105). Under the B-permit process, storm drain installation plans are subject to review and approval by Bureau of Engineering. Additionally, connections to the MS4 system from a property line to a catch basin or a storm drain pipe require a storm drain permit from Bureau of Engineering.

²⁰ City of Los Angeles, The Los Angeles River Revitalization Master Plan, <http://boe.lacity.org/lariverrmp/>. Accessed July 2, 2018.

²¹ Los Angeles Department of Water and Power, LA River Master Plan, <http://dpw.lacounty.gov/wmd/watershed/lar/LARiverMasterPlan.html>. Accessed July 2, 2018.

(b) *Los Angeles Municipal Code Sections 12.40 through 12.43, Landscape Ordinance*

In 1996, Ordinance No. 170,978 amended LAMC Sections 12.40 through 12.43 to establish consistent landscape requirements for new projects within the City. LAMC Section 12.40 contains general requirements, including a point system for specific project features and techniques in order to determine compliance with the ordinance, and defines exemptions from the Ordinance. LAMC Section 12.41 sets minimum standards for water delivery systems (irrigation) to landscapes. LAMC Section 12.43 defines the practices addressed by the Ordinance, of which two are applicable to stormwater management. The Heat and Glare Reduction practice states among its purposes the design of vehicular use areas that reduce stormwater runoff and increase groundwater recharge; and the Soil and Watershed Conservation practice is intended to encourage the restoration of native areas that are unavoidably disturbed by development; to conserve soil and accumulated organic litter and reduce erosion by utilization of a variety of methods; and to increase the “residence time of precipitation” (i.e., the time between the original evaporation and the returning of water masses to the land surface as precipitation) within a given watershed. Implementation guidelines developed for the Ordinance provide specific features and techniques for incorporation into projects, and include Water Management guidelines addressing runoff, infiltration, and groundwater recharge. This Ordinance is incorporated into the LID ordinance.

(c) *Los Angeles Municipal Code Section 64.70, Stormwater and Urban Runoff Pollution Control Ordinance*

LAMC Section 64.70, the Stormwater and Urban Runoff Pollution Control Ordinance, was added by Ordinance No. 172,176 in 1998 and prohibits the discharge of unauthorized pollutants in the City. The Watershed Protection Program (Stormwater Program) for the City is managed by the Bureau of Sanitation along with all City Flood Protection and Pollution Abatement (Water Quality) Programs including, but not limited to, regulatory compliance, implementation, operations, reporting and funding. Section 64.70 sets forth uniform requirements and prohibitions for discharges and places of discharge into the storm drain system and receiving waters necessary to adequately enforce and administer all federal and state laws, legal standards, orders and/or special orders that provide for the protection, enhancement and restoration of water quality. Through a program employing watershed-based approaches the regulation implements the following objectives:

1. To comply with all Federal and State laws, lawful standards and orders applicable to stormwater and urban runoff pollution control;
2. To prohibit any discharge which may interfere with the operation of, or cause any damage to the storm drain system, or impair the beneficial use of the receiving waters;
3. To prohibit illicit discharges to the storm drain system;
4. To reduce stormwater runoff pollution;

5. To reduce non-stormwater discharge to the storm drain system to the maximum extent practicable; and
6. To develop and implement effective educational outreach programs designed to educate the public on issues of stormwater and urban runoff pollution.

The Ordinance applies to all dischargers and places of discharge that discharge stormwater or non-stormwater into any storm drain system or receiving waters. While this practice is prohibited under the County's Municipal NPDES Permit, adoption of the Ordinance allows enforcement by the Department of Public Works as well as the levy of fines for violations. General Discharge Prohibitions require that no person shall discharge, cause, permit, or contribute to the discharge of any of the following to the storm drain system or receiving waters:

1. Any liquids, solids or gases which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion or injury.
2. Any solid or viscous materials which could cause obstruction to the flow or operation of the storm drain system.
3. Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.
4. Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.
5. Any hazardous substance, including, but without limitation, medical waste, infectious waste and toxic materials.

Under LAMC Section 64.70.02.D, Requirement to Prevent, Control, and Reduce Stormwater Pollutants, any owner of a facility engaged in activities or operations as listed in the Critical Sources Categories, Section III of the Board's Rules and Regulations shall be required to implement BMPs as promulgated in the Rules and Regulations. The owner/developer of a property under construction shall be required to implement the stormwater pollution control requirements for construction activities as depicted in the project plans approved by the Department of Building and Safety. In the event a specified BMP proves to be ineffective or infeasible, the additional and/or alternative, site-specific BMPs or conditions deemed appropriate to achieve the objectives of this ordinance as defined in Subsection B of LAMC Section 64.70.

(d) *Los Angeles Municipal Code Section 64.72, Stormwater
Pollution Control Measures for Development Planning and
Construction Activities*

LAMC Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities, was added by Ordinance 173,494 (LID Ordinance) in 2000 and sets forth requirements for construction activities and facility operations of

development and redevelopment projects to comply with the requirements of the NPDES permit SUSMP requirements. The provisions of this section contain requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the Land Development requirements of the Los Angeles County MS4 permit though integrating LID practices and standards for stormwater pollution mitigation, and maximize open, green and pervious space on all Developments and Redevelopments consistent with the City's landscape ordinance and other related requirements in the Development Best Management Practices Handbook.

(e) Low Impact Development Ordinance (No. 181,899)

In 2011, the City adopted a City-wide Low Impact Development Ordinance (LID Ordinance) that amends the City's existing Stormwater Ordinance (LAMC Section Nos. 64.70 and 64.72, discussed above). The LID Ordinance enforces the requirements of the Los Angeles County MS4 Permit. LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to its source as possible. LID promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater.

The goal of these LID practices is to remove nutrients, bacteria, and metals from stormwater while also reducing the quantity and intensity of stormwater flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where infiltration is not feasible, the use of bioretention, rain gardens, green roofs, and rain barrels that will store, evaporate, detain, and/or treat runoff can be used.²²

The intent of LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce stormwater/urban runoff while improving water quality;
- Promote rainwater harvesting;
- Reduce offsite runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

The City-wide LID strategy addresses land development planning as well as storm drain infrastructure. Toward this end, LID is implemented through BMPs that fall into four categories: site planning BMPs, landscape BMPs, building BMPs, and street and alley BMPs. While the LID Ordinance and the BMPs contained therein comply with Los Angeles County MS4 Permit requirements for stormwater management, the County's

²² City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016, http://www.lastormwater.org/wp-content/files_mf/lidmanualfinal.pdf. Accessed November 2017.

MS4 requirements apply only to proposed new development and redevelopment of a certain size, primarily address stormwater pollution prevention as opposed to groundwater recharge, and vary over time as the permit is reissued every five years. The LID Ordinance requires the capture and management of the greater of an 85th percentile rain event or the first 0.75-inch of runoff flow during storm events defined in the City's LID BMPs, through one or more of the City's preferred LID improvements in priority order: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible as summarized below.

- On-Site Infiltration refers to the physical process of percolation, or downward seepage, of water through a soil's pore space. As water infiltrates, the natural filtration, adsorption, and biological decomposition properties of soils, plant roots, and microorganisms work to remove pollutants prior to the water recharging the underlying groundwater. Infiltration BMPs include infiltration basins, infiltration trenches, infiltration galleries, bioretention without an underdrain, dry wells, and permeable pavement. Infiltration can provide multiple benefits, including pollutant removal, peak flow control, groundwater recharge, and flood control. However, conditions that can limit the use of infiltration include soil properties, proximity to building foundations and other infrastructure, geotechnical hazards (e.g., liquefaction, landslides), and potential adverse impacts on groundwater quality (e.g. industrial pollutant source areas, contaminated soils, groundwater plumes). To ensure that infiltration would be physically feasible and desirable, a categorical screening of site feasibility criteria must be completed prior to the use of infiltration BMPs.
- Capture and Use refers to a specific type of BMP that operates by capturing stormwater runoff and holding it for efficient use at a later time. On a commercial or industrial scale, capture and use BMPs are typically cisterns, which can be implemented both above and below ground. Cisterns are sized to store a specified volume of water with no surface discharge until this volume is exceeded. The primary use of captured runoff is for subsurface drip irrigation. The temporary storage of roof runoff reduces the runoff volume from a property and may reduce the peak runoff velocity for small, frequently occurring storms. In addition, by reducing the amount of stormwater runoff flowing into a stormwater conveyance system, fewer pollutants are transported through the conveyance system into local streams and the ocean. The on-site use of the stored water for non-potable domestic purposes conserves City-supplied potable water and, where directed to unpaved surfaces, can recharge groundwater in local aquifers.
- Biofiltration BMPs – Landscaped facilities that capture and treat stormwater runoff through a variety of physical and biological treatment processes. Facilities normally consist of a ponding area, mulch layer, planting soils, plants, and in some cases, an underdrain. Runoff that passes through a biofiltration system is treated by the natural adsorption and filtration characteristics of the plants, soils, and microbes with which the water comes into contact. Biofiltration BMPs include vegetated swales, filter strips, planter boxes, high flow biotreatment units, bioinfiltration facilities, and bioretention facilities with underdrains. Biofiltration can provide multiple benefits, including pollutant removal, peak flow control, and low amounts of volume reduction through infiltration and evapotranspiration.

Per the City's 2016 LID Manual's Figure 3.3 and Section 4.1, the City's preferred LID improvement is on-site infiltration of stormwater, since it allows for groundwater recharge and reduces the volume of stormwater entering municipal drains.²³ If Project Site conditions are not suitable for infiltration, the City requires on-site retention via stormwater capture and reuse. Should capture and reuse be deemed technically infeasible, high efficiency bio-filtration/bioretenion systems should be utilized. Lastly, under the LID ordinance (LAMC Section 64.72 (C) 6), as interpreted in the LID Manual, if no single approach listed in the LID Manual is feasible, then a combination of approaches may be used.²⁴

(f) *Water Quality Compliance Master Plan for Urban Runoff*

The Water Quality Compliance Master Plan for Urban Runoff (Water Quality Compliance Master Plan)²⁵ was developed by the Department of Public Works, Bureau of Sanitation, Watershed Protection Division, in collaboration with stakeholders, in response to a 2007 City Council motion for the development of a water quality master plan addressing pollution from urban runoff within the City. The Water Quality Compliance Master Plan was adopted in April 2009.

The Water Quality Compliance Master Plan addresses planning, budgeting, and funding for achieving clean stormwater and urban runoff for the next 20 years and presents an overview of the status of urban runoff management within the City. The Water Quality Compliance Master Plan identifies the City's four watersheds; summarizes water quality conditions in the City's receiving waters as well as known sources of pollutants; summarizes regulatory requirements for water quality; describes BMPs required by the City for stormwater quality management; and discusses related plans for water quality that are implemented within the Los Angeles region, particularly TMDL Implementation Plans and Watershed Management Plans in Los Angeles.

(g) *Stormwater Program – Los Angeles County MS4 Permit*

The Watershed Protection Division of Department of Public Works, Bureau of Sanitation is responsible for stormwater pollution control throughout the City in compliance with the Los Angeles County MS4 Permit. The Watershed Protection Division administers the City's Stormwater Program, which has two major components: Pollution Abatement and Flood Control. The Watershed Protection Division publishes the two-part Development Best Management Practices Handbook that provides guidance to developers for compliance with the Los Angeles County MS4 permit through the incorporation of water

²³ City of Los Angeles Development Best Management Practices Handbook, Low Impact Development Manual, Part B, http://www.lastormwater.org/wp-content/files_mf/lidhandbookfinal_62212.pdf. Accessed July 2, 2018.

²⁴ City of Los Angeles Development Best Management Practices Handbook, Low Impact Development Manual, Part B, http://www.lastormwater.org/wp-content/files_mf/lidhandbookfinal_62212.pdf. Accessed July 2, 2018.

²⁵ City of Los Angeles Department of Public Works, Water Quality Compliance Master Plan, available at: http://www.lastormwater.org/wp-content/files_mf/wqcmpur.pdf. Accessed April 14, 2018.

quality management into development planning. The Development Best Management Practices Handbook, Part A: Construction Activities (3rd edition), (September 2004) provides specific minimum BMPs for all construction activities.²⁶ The Development Best Management Practices Handbook, Low Impact Development Manual, Part B: Planning Activities (5th edition, May 2016) (LID Handbook) provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City's Stormwater Program.²⁷ The LID Handbook assists developers with the selection, design, and incorporation of stormwater source control and treatment control BMPs into project design plans, and provides an overview of the City's plan review and permitting process.

During the development review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

Operations and Maintenance Requirements in the LID Handbook include the following:

- Frequent inspections of the infiltration facilities shall occur to ensure that surface ponding infiltrates into the subsurface completely within the design drawdown time following storms. If vector breeding is taking place at a site as a result of contained stormwater or inadequately maintained BMPs, the Greater Los Angeles County Vector Control District has the ability to fine site owners for violating the California Health and Safety Code (Section 2060 – 2067).
- Regular inspections shall take place to ensure that the pretreatment sediment removal BMP/forebay is working efficiently. Sediment buildup exceeding 50% of the forebay sediment storage capacity shall be removed.
- The infiltration facility shall be maintained to prevent clogging. Maintenance activities include checking for debris/sediment accumulation and removal of such debris.
- Facility soil (if applicable) shall be maintained. Flow entrances, ponding areas, and surface overflow areas will be inspected for erosion periodically. Soil and/or mulch will be replaced as necessary to maintain the long-term design infiltration rate for the life of the project.
- Site vegetation shall be maintained as frequently as necessary to maintain the aesthetic appearance of the site as well as the filtration capabilities (where applicable). This includes the removal of fallen, dead, and/or invasive plants, watering as necessary, and the replanting and/or reseeding of vegetation for reestablishment as necessary.

²⁶ City of Los Angeles, Best Management Practices Handbook, Part A, http://www.lastormwater.org/wp-content/files_mf/parta.pdf. Accessed June 4, 2018

²⁷ City of Los Angeles Development Best Management Practices Handbook, Low Impact Development Manual, Part B, http://www.lastormwater.org/wp-content/files_mf/lidhandbookfinal_62212.pdf. Accessed June 4, 2018.

- Pervious pavement areas that are damaged or clogged shall be replaced/repared per manufacture's recommendation as needed.
- Follow all proprietary operation and maintenance requirements.

The provisions of the LID Handbook are implemented through a Covenant and Agreement (C&A) that must be submitted, along with the design plans showing the project's stormwater measures, during the plan review and approval process. The C&A must include, as an attachment, an Operation and Maintenance (O&M) Plan describing the BMP operation and maintenance procedures, employee training program and duties, operating schedule, maintenance frequency, routine service schedule, and other activities. The O&M requires a maintenance log be kept that can be inspected by the City upon request.

b) Existing Conditions

(1) Surface Water Hydrology

(a) Regional

(i) Los Angeles River Watershed

The Project Site is located within the Los Angeles River Watershed. The 55-mile long Los Angeles River originates in the Santa Monica, Santa Susana, and San Gabriel Mountains to the north and west of the Project Site, draining a watershed that is one of the largest in the region at 824 square miles in total. The Los Angeles Watershed is also one of the most diverse watersheds in the region in terms of the different land use patterns it contains. Approximately 324 square miles of the watershed are covered by forest or open space, including the area near the river system headwaters. The majority of the rest of the watershed is intensely urbanized. The Los Angeles River itself is, for a large portion of its length, highly modified, having been lined with concrete by the U.S. Army Corps of Engineers from the 1930s through the 1960s. There are approximately 205 miles of engineered channels within the Los Angeles River Watershed system. The southern portion of the Watershed captures runoff from urbanized areas, including Downtown Los Angeles and its surrounding areas. The river's flows are mostly fed by a complex underground network MS4 network and a surface network of tributaries. From Downtown Los Angeles, where the Los Angeles River generally flows east and south, the river ultimately discharges to the Pacific Ocean at San Pedro Bay.²⁸

(b) Local

(i) Project Site

The Project Site is located in the portion of the watershed that drains into Reach 2 of the Los Angeles River, which drains a watershed extending from the City of Carson to

²⁸ Los Angeles Regional Water Quality Control Board, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, page 1-39, https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/FinalRevisedChapter1Text.pdf. Accessed July 2018.

Figueroa Street in the City of Los Angeles. Located at the northwest corner of Olive Street and 11th Street in Downtown's South Park community, the Project Site is 41,603 square feet in size and includes 34,673 square feet of building area with five existing commercial buildings, 3,424 square feet of surface parking lot and 3,506 square feet of right of way and alley easement area.²⁹

The existing runoff rates at the Project Site are estimated in the Preliminary Hydrology Study. As stated therein, the streets that front the Project Site (i.e., Olive Street and 11th Street) drain along the surface to local low points. Specifically, Olive Street drains to a local point located at the intersection with 11th Street. 11th Street drains to two low points located at the intersection with Olive Street. During a 50-year storm event, the 50-year rainfall depth at the Project Site is 5.8 inches. The existing runoff rate, referred to as the [Q] value, at the Project Site is 1.95 cubic feet per second (cfs). As the Project Site is currently fully developed and/or paved, it is estimated to be approximately 98 percent impervious.³⁰

Information regarding soils and groundwater has been provided in the Preliminary Geotechnical Report for the Project. As indicated reported therein, the majority of soil below the surface consists of clayey sand, sandy clay, and silty sand. Gravel and cobbles are also present below approximately 10 feet below ground surface (bgs). The characteristics of these soils generally support adequate infiltration.³¹ When measured in 2015, groundwater seepage below the Project Site was encountered at depths of 60 feet and 85 feet bgs and the groundwater table was at 120 feet bgs. The historical high groundwater level has been between 100 and 120 feet bgs.³²

(ii) *Catch Basins*

As described in the Preliminary Hydrology Study, and based on information in Los Angeles County Flood Control District Drawings, two catch basins are located on the Project Site's 11th Street frontage. One is located on the northwest corner and the other is located on the southwest corner at the intersection of Olive Street and 11th Street. The northwest corner catch basin is a 3.5-foot-wide catch basin and is connected via an 18-inch RCP lateral to the 27-inch RCP textile drain. The southwest corner catch basin is a curb opening 3.5-foot wide catch basin and is connected to the 27-inch RCP textile drain via a 15-inch RCP lateral.

²⁹ With mezzanines added to the ground level development, the rental area is 35,651 square feet.

³⁰ David Evans and Associates, Inc., Preliminary Hydrology Study, Appendix B (Hydrology Calculations), contained in Appendix I-1 of this Draft EIR.

³¹ Soil composition determines how much water the soil holds and how much water drains through it. Particles in the soil that are small and dense prevent water from being absorbed into the soil. Large particles that are loosely spaced, such as sand or silt, allow water to move through the soil and drain quickly.

³² Geotechnical Engineering Services, Report of Geotechnical Engineering Services, Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California. March 2, 2018, page 5. Appendix F of this Draft EIR.

³³ David Evans and Associates, Inc., Preliminary Hydrology Study, page 5, Appendix I-1 of this Draft EIR.

There is one catch basin on Olive Street that is adjacent to the Project Site. It is located on the northwest corner of Olive Street and 11th Street. It is a curb opening 3.5-foot wide catch basin and is connected via an 18-inch RCP lateral to the 27-inch RCP textile drain.

The tributary system for the 27-inch RCP textile drain, which receives runoff from two catch basins on 11th Street and one catch basin on Olive Street, is approximately 12.04 acres. This MS4 system component's capacity is based on the size of the tributary system and per acre runoff in a 10-year storm (Q_{10} runoff). The area generates 2.08 cfs/acre in a 10-year storm, or approximately 25 cfs (12.04 acres x 2.08 cfs/acre). As such, runoff from the tributary system, including the Project Site, would not exceed the ten-year, 25 cfs design capacity of the local infrastructure required under the design of the MS4. The Q_{10} design capacity of the 27-inch drain is consistent with the MS4 storm drains in Downtown Los Angeles.

Larger storm event runoff (e.g., a 50-year storm) in Downtown is accommodated by curb and gutter (sheet flow) between Figueroa Street and the Los Angeles River, in addition to the MS4.³³ According to FEMA maps, this section of the City is zoned "X," which indicates that the area would not be flooded in a 100-year storm and that the Los Angeles River Channel is also designed to accommodate a 100-year event.³⁴ The determination that the area would not be inundated during a 100-year storm indicates that the curb and gutter drainage system is adequate to manage runoff from the tributary area (including the Project Site) during a Q_{50} event without overwhelming the system.³⁵

(iii) *Infrastructure/Drainage Basin*

As described in the Preliminary Hydrology Study, a single MS4 is located within the vicinity of the Project Site. The MS4 is labeled as a "textile drain" and is owned by the Los Angeles County Flood Control District. The existing MS4 line is a 27-inch reinforced concrete pipe (RCP) that begins at the frontage of the Project within 11th Street. The MS4 line extends 572 feet southeast within 11th Street. Once the MS4 crosses Hill Street, the drain line increases into a 36-inch RCP that continues southeast until Main Street where it travels north down Main Street until it ultimately connects to the existing City of Los Angeles storm drain number 16119. The total length of the 36-inch RCP is approximately 1,158 feet. The 27-inch RCP portion of the MS4 has a 10-year design capacity (Q_{10}) of 25 cfs. The total area tributary to the 27-inch RCP is approximately 12 acres. The average

³³ David Evans and Associates, Inc., Preliminary Hydrology Study, page 5, Appendix I-1 of this Draft EIR.

³⁴ Federal Emergency Management Agency, Flood Insurance Rate Map, Panel 06037C1620F, September 26, 2008, <https://msc.fema.gov/portal/search?AddressQuery=1045%20south%20olive%20st%2C%20los%20angeles#searchresultsanchor>. Accessed January 2018.

³⁵ Information regarding operating conditions of the drainage facilities, inclusive of Hydrology Calculations, is provide on pages 4 and 5 of the Preliminary Hydrology Study, included as Appendix I-1 of this Draft EIR.

runoff rate for the 12-acre tributary area is approximately 2.08 cfs/acre.^{36,37} This is consistent with the 25 cfs (2.08 cfs x 12 acres) design capacity of the RCP

(iv) *Flood Zone*

The Project Site is mapped by the FEMA as lying within a Zone X area, which is an “other Flood Area” but not a SFHA.³⁸ Zone X areas are defined as lying within a 0.2 percent annual chance flood hazard zone, defined as an area with a 0.2 percent annual chance of flooding in any given year (500-year flood); or a 1.0 percent annual chance flood (100-year flood area) with average depths of less than 1 foot or with drainage areas less than 1 square mile. Zone X also includes areas protected by levees from one percent chance floods. Such areas are located outside of the base flood areas established by FEMA for setting flood insurance requirements. According to the City of Los Angeles Zoning Information and Mapping Access System (ZIMAS), the Project Site does not lie within a flood zone.³⁹ Further, the DWR indicates that the Project Site does not lie within a 100-year floodplain.⁴⁰

(2) *Surface Water Quality*

(a) *Regional*

The Los Angeles River, from the Arroyo Seco, north of Downtown Los Angeles, to the confluence with the Rio Hondo (to the southeast of Downtown Los Angeles, southeast of the City of South Gate) flows through industrial and commercial areas and is bordered by rail yards, freeways, and storage facilities. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum products storage facilities, major freeways, and rail yards serving the Ports of Los Angeles and Long Beach.⁴¹ Although the Basin Plan lists beneficial uses for the Los Angeles River as potential municipal uses and potential industrial uses; existing groundwater recharge and wildlife habitat,⁴² the Los Angeles River does not meet the

³⁶ The tributary area is the surface area that contributes surface flow to the 27-inch RCP.

³⁷ David Evans and Associates, Inc., Preliminary Hydrology Study for APN 5139-010-001; -002; -008; -010; -011, 1045 South Oliva Street, Los Angeles, CA 90015, February 27, 2018.

³⁸ Federal Emergency Management Agency, Flood Insurance Rate Map, Panel 06037C1620F, September 26, 2008, <https://msc.fema.gov/portal/search?AddressQuery=1045%20south%20olive%20st%2C%20los%20angeles#searchresultsanchor>. Accessed January 2018.

³⁹ City of Los Angeles Department of City Planning, Zoning Information and Mapping Access System (ZIMAS), Parcel Profile Report: 1045 S. Olive Street. Generated January 8, 2018.

⁴⁰ California Department of Water Resources, Best Available Map (BAM) System, <http://gis.bam.water.ca.gov/bam/>. Accessed January 2018.

⁴¹ California Regional Water Quality Control Board, Los Angeles Region (4), Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, page 1-39, https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/FinalRevisedChapter1Text.pdf. Accessed July 2018.

⁴² California Regional Water Quality Control Board, Los Angeles Region (4), Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, Table 2.1, http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.shtml. Accessed July 2018.

water quality standards for potential municipal and industrial beneficial uses and is listed in the SWRCB's 2012 Integrated Report (CWA Section 303(d) List) as an impaired waterway. The following TMDL⁴³ for the pollutants that contribute to the impairment of Los Angeles River, Reach 2, as listed in the most recently approved 2012 303 (d) List include ammonia; copper (dissolved); indicator bacteria; lead; nutrients (algae), oil, and trash.⁴⁴

Efforts to revitalize areas in and along the hydromodified stream sections of the watershed began in the 1980s and steadily built momentum, finally culminating in a Los Angeles River Revitalization Master Plan (with projects geared toward the greening and restoration of several areas in and around the Los Angeles River and its main tributaries.⁴⁵

(b) *Local*

Based on a review of the existing Site conditions (building age and condition and standard paving conditions) it appears that the Project Site currently does not implement surface water quality BMPs, and apparently has no existing means of treatment for stormwater runoff. As stated above, the nearly impervious Project Site drains from the roofs and pavement to catch basins along the Project Site's frontage on W. 11th Street and at the corner of W. 11th Street and S. Olive Street. There is no existing on-site vegetation that could filter surface runoff.

As indicated in the Phase I and II Environmental Site Assessments conducted for the Project Site, several historical recognized environmental conditions (HRECs), including wood working, spray painting, machine shop, film vault storage, printing, auto service, light manufacturing, and metal auto body works occurred within the Subject Property over a period of decades. However, no recognized environmental conditions (RECs) or controlled recognized environmental conditions (CRECs) exist on the Project Site. Also, based on the Phase II Environmental Site Assessment conducted for the Project Site, these former operations do not appear to have adversely affected the soil or generated soil vapor in the investigated areas that would potentially affect existing surface water quality.⁴⁶

The make-up of RECs and CRECs is discussed in greater detail in Section IV.G, *Hazards and Hazardous Materials*, of this Draft EIR. Rainwater or other water sources have the

⁴³ The TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (with a margin of safety included).

⁴⁴ California State Water Resources Control Board, Impaired Water Bodies, Final 2012 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report), https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml?wbid=CA. Accessed July 2018.

⁴⁵ California Regional Water Quality Control Board, Los Angeles Region (4), Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, page 1-39, https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/FinalRevisedChapter1Text.pdf. Accessed July 2018.

⁴⁶ Leighton and Associates, Phase I and Limited Phase II Environmental Site Assessment for 1033 through 1057 S. Olive Street, January 3, 2018, page 56. Contained in Appendix H of this Draft EIR.

potential to dissolve and transport such contaminants into groundwater or surface water supplies. Because RECs and CRECs are not present within the Project Site's soils and, because the existing soils are not exposed to rainwater or other water sources, contamination of either groundwater or surface water at the Project Site from any RECs and CRECs does not currently occur.

(3) Groundwater Hydrology

(a) *Regional*

Downtown Los Angeles is located in the Central Subbasin (Central Basin) of the Coastal Plain of Los Angeles Basin. Groundwater for domestic use is a major beneficial use of groundwater basins in Los Angeles County and one-third of the water supply for coastal areas of Greater Los Angeles comes from local groundwater sources. The main productive fresh-water-bearing sediments are contained within the Holocene alluvium and the Pleistocene Lakewood and San Pedro Formations. Throughout most of the Central Basin, the near surface Bellflower aquiclude restricts vertical percolation into the Holocene age aquifer and other underlying aquifers, and creates local semi-perched groundwater conditions.⁴⁷

The main additional productive aquifers in the Central Basin are the Gardena and Gage aquifers within the Lakewood Formation and the Silverado, Lynwood and Sunnyside aquifers within the San Pedro Formation. Groundwater flow in the Los Angeles Coastal Plain is generally south-southeasterly, but may be restricted by natural features. The southwest boundary of the Central Basin is formed by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift.⁴⁸ Historically, groundwater flow in the Central Basin has been from recharge areas in the northeast part of the Central Basin toward the Pacific Ocean and the West Coast Basin on the southwest. Many faults, folds, and uplifted basement areas affect the water-bearing rocks in the Central Basin. Most of these structures form minor restrictions to the movement of groundwater flow. The strongest restrictive effect on groundwater occurs along the southwest boundary where the rocky faults and folds of the Newport–Inglewood uplift create partial barriers to the movement of groundwater from the Central Basin to the West Coast Subbasin of the Coastal Plain of Los Angeles Basin. ⁴⁹ However, pumping has lowered the water level in the Central Basin and water levels in some aquifers are about

⁴⁷ State of California, Department of Water Resources, California's Groundwater, Bulletin 118, Coastal Plain of the Los Angeles Groundwater Central Subbasin, 2004.

⁴⁸ State of California, Department of Water Resources, California's Groundwater, Bulletin 118, Coastal Plain of the Los Angeles Groundwater Central Subbasin, 2004.

⁴⁹ State of California, California's Groundwater Bulletin 118, South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin, February 27, 2004, <https://www.water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-11.04.pdf>. Accessed April 14, 2018.

equal on both sides of the Newport-Inglewood uplift, thus, decreasing subsurface outflow to the West Coast Basin.⁵⁰

Groundwater enters the Central Basin through surface and subsurface flow and by direct percolation of precipitation, stream flow, and applied water (such as irrigation, dust control, and recharge). Percolation into the Los Angeles Forebay (along the Los Angeles River to the south/southeast of Elysian Hills) is restricted due to paving and development of the surface of the forebay, where permeable sediments are exposed at ground surface. Natural replenishment of the Central Basin's groundwater supply is largely from surface inflow through Whittier Narrows (and some underflow) from the San Gabriel Valley. Imported water purchased from the Metropolitan Water District (MWD) and recycled water from the Whittier and San Jose Treatment Plants are used for artificial recharge in the Montebello Forebay at the Rio Hondo and San Gabriel River spreading grounds by the Water Replenishment District of Southern California. The natural recharge for the Central Basin is estimated to be 31,950 acre feet per year (afy) and artificial recharge to be 63,688 afy (as measured in 1998).⁵¹ Additionally, the Central Basin receives 27,000 afy of water through the Whittier Narrows from the San Gabriel Valley Basin in the form of subsurface flow. Urban extractions for the Subbasin were 204,335 afy in 1998.⁵²

(b) *Local*

Based on a review of the Seismic Hazard Zone Report for the Hollywood 7.5-Minute Quadrangle, the historical high groundwater level in the Downtown Los Angeles area has been between 100 to 120 feet bgs.⁵³ Groundwater is anticipated to follow topography, with groundwater in the vicinity of the site anticipated to flow in a west-southwest direction.⁵⁴

Groundwater seepage⁵⁵ or “perched” groundwater within the Project boundaries was encountered in silt and clay layers in intermittent locations and at depths of approximately 60 feet and 85 feet respectively. The distinction between the groundwater table and perched groundwater is important for sites in Downtown Los Angeles. Perched

⁵⁰ State of California, California's Groundwater Bulletin 118, South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin, February 27, 2004, <https://www.water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-11.04.pdf>. Accessed April 14, 2018.

⁵¹ State of California, California's Groundwater Bulletin 118, South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin, February 27, 2004, <https://www.water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-11.04.pdf>. Accessed April 14, 2018.

⁵² State of California, California's Groundwater Bulletin 118, South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin, February 27, 2004, <https://www.water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-11.04.pdf>. Accessed April 14, 2018.

⁵³ GeoDesign, Report of Geotechnical Services for 1045 Olive, page 4.

⁵⁴ Leighton and Associates, Phase I and Limited Phase II Environmental Site Assessment, for 1033 through 1057 S. Olive Street, January 3, 2018, page 16.

⁵⁵ The term, “groundwater seepage” is used to describe groundwater that is not representative of the groundwater table, rather groundwater that is isolated or “perched” on a relatively impermeable strata such as layers of clay or silt contained within the overall granular strata that has the potential to migrate into the sidewalls of an exploration boring into an excavation.

groundwater occurs intermittently in relatively shallow zones. However, the global groundwater table is relatively deep. The estimated direction of flow for the deeper groundwater table is expected to be southwesterly, whereas the perched water remains stagnant on the silt or clay layers.

(4) Groundwater Quality

(a) *Regional*

According to the Basin Plan, the general quality of ground water in the Los Angeles Region is substantially degraded as compared to background levels. Much of the degradation reflects the area's historic land uses. For example, fertilizers and pesticides, typically used on agricultural lands, can degrade ground water when irrigation return waters containing such substances seep into the subsurface. In areas that are unsewered, nitrogen and pathogenic bacteria from overloaded or improperly sited onsite wastewater treatment systems can seep into ground water, resulting in degraded water quality and attendant health risks to those who rely on ground water for domestic supply. In areas with industrial or commercial activities, past disposal practices, spills and aboveground and underground storage tanks all present sources of contamination that can percolate into the groundwater.⁵⁶

As discussed in the Basin Plan, as a result of inadequate handling, storage, and disposal practices, thousands of underground storage tanks in the Region have leaked or are leaking. As such, petroleum fuels, solvents, and other hazardous substances have discharged into the subsurface causing pollution of ground water.⁵⁷

Pollutants such as total dissolved solids (TDS), sulfates, chlorine, and boron occur within the Central Basin (Basin No. 4-11.04) groundwater supplies.⁵⁸ Regarding water quality within public supply wells, of 316 wells sampled, 113 wells contained pollutants above Maximum Contaminant Levels (MCLs).⁵⁹ MCLs are standards that are set by the State of California (Title 22 Code of Standards) and the USEPA for drinking water quality and

⁵⁶ California Regional Water Quality Control Board, Los Angeles Region (4), Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, page 1-43, https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/FinalRevisedChapter1Text.pdf. Accessed July 2018.

⁵⁷ California Regional Water Quality Control Board, Los Angeles Region (4), Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, page 1-44, https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/FinalRevisedChapter1Text.pdf. Accessed July 2018.

⁵⁸ California Regional Water Quality Control Board, Los Angeles Region (4), Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, Chapter 3, page 3-44, https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/Final%20Chapter%203%20Text.pdf. Accessed August 10, 2018.

⁵⁹ State of California, California's Groundwater Bulletin 118, South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin, February 27, 2004, <https://www.water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-11.04.pdf>. Accessed April 14, 2018.

is the legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act. Under California's Porter-Cologne Water Quality Control Act, California MCL standards are in many cases more restrictive than federal standards.⁶⁰ The most common constituent contaminant groups were volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), which affected 43 wells, and inorganics, which affected 15 wells. One well was positive for radiological contamination, two wells were positive for nitrates, and no wells were positive for pesticides.⁶¹

(b) *Local*

No domestic water wells are located within the area surrounding the Project Site or on the Project Site.⁶² Two water wells are located within the vicinity of the Project Site. These include LA CO. DPW Well 2746 and GeoTracker Site T06037892114 (MW-1, MW-2, and MW-3). The LA CO. DPW well has a depth to 135 feet and is located approximately 175 north of the Project Site. Wells MW-1, MW-2, and MW-3 have depths ranging from 31.2 to 49.31 feet and are located approximately 450 feet to the north of the Project Site.⁶³ The well depths are consistent with the geotechnical findings regarding perched groundwater and the deeper water table. However, the groundwater quality in the local area has the potential to be contaminated as a result of former leaking underground storage tanks (LUSTS) in the area. According to a USEPA database search, eleven LUSTs have been reported within a 0.50-mile radius of the Project Site. These eleven facilities have been issued site closures (indicating that the regulator has been satisfied that there has been sufficient removal of the contamination and the contamination source). In light of having been issued regulatory closures, these sites are expected to have a low potential to adversely affect groundwater beneath the Project Site. The nearest of these closed LUSTs is a Shell Service Station at 504 Olympic Boulevard, approximately 0.08 miles to the north of the Project Site. A gasoline release to soil from this station was reported in 2008.⁶⁴ SWRCB's online database Geotracker indicates that the Shell Station requested closure in December 2012. The request stated that oil present in a groundwater monitoring well was located within the site boundaries and characterized as a "heavily degraded oil, likely a crude oil" and "not a refined petroleum product." Concentrations of volatile constituents and fuel oxygenates detected in groundwater samples collected from two monitoring wells during the same event at the Shell Station were relatively low. The Shell Station case was closed in July 2013. Based on the request

⁶⁰ California Water Quality Control Board, Overview of California Water Quality Law, 2008, https://www.waterboards.ca.gov/board_reference/docs/wq_law.pdf. Accessed August 13, 2018.

⁶¹ State of California, California's Groundwater Bulletin 118, South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin, February 27, 2004, <https://www.water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-11.04.pdf>. Accessed April 14, 2018.

⁶² Leighton and Associates, Inc., Phase I and Limited Phase II Environmental Site Assessment Update for 1033 to 1057 South Olive Street, January 3, 2018, page 45..

⁶³ GeoDesign, Report of Geotechnical Services for 1045 Olive, page 4.

⁶⁴ Leighton and Associates, Phase I and Limited Phase II Environmental Site Assessment, for 1033 through 1057 S. Olive Street, January 3, 2018, page 45.

for case closure and groundwater flow (cross-gradient) with respect to the Project Site, there is a low potential that the Shell Station's LUST adversely affected groundwater quality at the Project Site.⁶⁵ Other nearer closed LUST sites within the 0.5-mile radius include the Unocal Corporation property at 730 Olympic Boulevard and the Downtown Carwash site at 811 Olympic Boulevard. Other of the eleven LUST sites are located on a range of streets, including Figureroa Street, Flower Street, Broadway, Grand Avenue (1400 block), and Hill Street.

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to hydrology and water quality in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as its thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with the State CEQA Guidelines Appendix G, Section X, *Hydrology and Water Quality*, the Project would have a significant impact related to Hydrology and Water Quality if it would:

- a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***
- b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***
- c) *Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:***
 - (i) result in substantial erosion or siltation on- or off-site?***
 - (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;***
 - (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***
 - (iv) impede or redirect flood flows?***
- d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?***

⁶⁵ Leighton and Associates, Phase I and Limited Phase II Environmental Site Assessment, for 1033 through 1057 S. Olive Street, January 3, 2018, page 45.

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

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate hydrology and water quality:

(1) Surface Water Hydrology

- Cause flooding during the projected 50-year developed storm event which would have the potential to harm people or damage property or sensitive biological resources;
- Substantially reduce or increase the amount of surface water in a water body; or
- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

(2) Surface Water Quality

- Result in discharges that would create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code (CWC) or would cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body.

(3) Groundwater Level

- Change potable water levels sufficiently to:
 - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;
 - Reduce yields of adjacent wells or well fields (public or private); or
 - Adversely change the rate or direction of flow of groundwater; or
- Result in demonstrable and sustained reduction of groundwater recharge capacity.

(4) Groundwater Quality

- Affect the rate or change the direction of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.

b) Methodology

The analysis in this section addresses potential impacts on hydrology/drainage and water quality. The analysis is based, in part, on the *Preliminary Hydrology Study* and the *Preliminary LID Report* prepared for the Project and included in Appendix I-2 of this Draft EIR. The *Preliminary Hydrology Study* identifies drainage infrastructure location and capacities serving the Project Site as well as pre-Project and post-Project runoff flows. The *Preliminary LID Report* addresses the design considerations for the Project drainage system including required standards that must be met in its design, alternative systems that could meet relevant and applicable standards and calculations regarding the characteristics of those systems. These technical studies are based on methodologies specified by the County Department of Public Works, including the County Department of Public Works 2006 Hydrology Manual and the City Department of Public Works guidelines.

The analysis is also based on the *Geotechnical Investigation* prepared for this Project, provided in Appendix F of this Draft EIR, which includes the results of site sampling to determine the depth of groundwater at the Project Site.

(1) Hydrology

The analysis of hydrology impacts includes a calculation of pre-project and post-project runoff rates during a 50-year storm event. Potential impacts to the MS4 system were analyzed by comparing the calculated pre-project runoff rates to the calculated post-project runoff rates to determine the Project's potential effect on drainage flows. The Project's proposed on-site system for collecting, treating and reclaiming stormwater is described and reviewed for consistency with applicable regulatory measures for reducing flood impacts.

(2) Surface Water Quality

Water quality impacts were assessed by characterizing the types of pollutants and/or effects on water quality likely to be associated with construction and operation of the Project, Project design features to treat contaminants, and expected contaminant flows with Project implementation. Project consistency with relevant regulatory permits/requirements, including BMPs and applicable plans, is evaluated to demonstrate how compliance would reduce potential Project impacts.

(3) Groundwater Hydrology

The evaluation of groundwater hydrology impacts is based on studies describing historic groundwater levels and conditions in the area and on the Project Site. The evaluation focuses on whether perched conditions, in which the groundwater is disconnected from the area's water table and groundwater flow, occur and whether the Project's built subterranean structures would encounter the estimated groundwater resource. Research

is based on *Preliminary Hydrology Study*⁶⁶ included in Appendix I-1 and the *Preliminary LID Report*, I-2 of this Draft EIR, respectively and groundwater measurements provided in the *Preliminary Geotechnical Report* for the Project, which is provided in Appendix F.⁶⁷

(4) Groundwater Quality

The evaluation of groundwater quality impacts is based on the *Phase I and Limited Phase II Environmental Site Assessment* prepared for the Project by Leighton and Associates, Inc. This report, provided in Appendix H of this Draft EIR, identifies historic conditions of the Project Site and surrounding area that would have had the potential to contaminate soils and groundwater through seepage or accidental conditions during construction. The evaluation also considers the character of the Project as an impervious development in which no rainfall or other water movement would be anticipated from the building site to the groundwater resources during operation.

(5) Water Quality and Sustainable Groundwater Management Plans

The evaluation of Project consistency with Water Quality and Sustainable Groundwater Management Plans is based on a summary of the preceding analyses of Project impacts on water quality and groundwater resources. The summary identifies the applicable plans, the regulatory mechanisms for meeting the standards in those plans and the Project characteristics that conform to those regulatory standards.

c) Project Characteristics

The Project would incorporate into its design an on-site drainage system that would collect rainfall from the rooftop and terrace areas, treat/filter the water flow and convey it to the groundwater and/or local storm drain system. This on-site drainage system would be designed pursuant to the City's LID requirements. The features of this on-site drainage system are described in the analysis discussions below. There are no further Project Design Features proposed to be incorporated that relate to hydrology and water quality.

⁶⁶ David Evans and Associates, Inc., Preliminary Hydrology Study for APN 5139-010-001; - 002; -008; - 010; -011-, 1045 South Oliva Street, Los Angeles, CA 90015, February 27, 2018.

⁶⁷ GeoDesign Incorporated, Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018.

d) Analysis of Project Impacts

Threshold a) *Would the Project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality? Less than Significant Impact.*

(1) Construction

(a) Surface Water Quality

Construction activities associated with the construction of the Project such as earth moving, maintenance and operation of construction equipment, and handling, storage, accidental spills and disposal of materials could contribute to pollutant loading into Waters of the State via stormwater runoff into the stormwater system, ultimately leading to protected waters. Non-stormwater discharges, such as from washing equipment and watering for dust control, are other potential sources of contaminant discharges from the Project Site into the County's MS4 system. Exposed and stockpiled soils could be subject to erosion and conveyance into nearby MS4 drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff.

The Project's proposed construction activities would not require compliance with the State's General Construction NPDES Permit and the development of a construction SWPPP because the Project Site is less than one acre in size.⁶⁸ However, all development and redevelopment projects that create, add, or replace 500 square feet or more of impervious area must comply with the City's LID Ordinance.⁶⁹ This includes compliance with the City's Development Best Management Practices Handbook, Part A: Construction Activities (Appendix A, Minimum Stormwater Requirements). Also, construction activities must comply with grading and water pollution regulations set forth in the LAMC, including LAMC Section 64.70.02 (*Pollutant Discharge Control*), which disallows any illicit discharges to the storm drain system, and LAMC Section 64.72 (*Stormwater Pollution Control Measures for Development Planning and Construction Activities*), which requires implementation of storm water requirements and construction practices listed in the City's *Development Best Management Practices Handbook, Part A, Appendix A*. The BMPs therein, include, but are not limited to, erosion control (using for example, such devices as dikes or swales slope drains), sediment control (using such devices as check dams, sand bag barriers and storm drain inlet protection), reduced exposure of soils stockpiles, proper disposal of trash and construction waste, containment of non-storm water runoff within the Project Site, retention of concrete wastes on-site and

⁶⁸ State Water Resources Control Board, Construction General Permit; https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_00_09_complete.pdf. Accessed July 2, 2018.

⁶⁹ City of Los Angeles, Los Angeles Stormwater website, <http://www.lastormwater.org/green-la/low-impact-development/lid-documents/>. Accessed June 4, 2018.

additional, similar BMPs.⁷⁰ In compliance with this requirement, BMPs must be implemented to protect the quality of storm water and non-storm water runoff during construction by controlling the discharge of potential contaminants incident to the construction process, which may include for example, petroleum products, paints and solvents.

During construction, because of removal of buildings and excavation, the amount of pervious surface at the Project Site would increase. During large parts of the construction schedule increased exposure of pervious soils would occur through site clearance, site preparation, grading and below-grade excavation. Surface water would be diverted or filtered through BMPs prior to release into the MS4. However, prior to diversion, some rainfall or other water (e.g., dust control water) would collect within the Project Site and, thus, reduce, the overall runoff from the property compared to existing conditions.

LAMC Section 64.72 (B) further defines stormwater pollution control measures by including the objectives and specifications for integration of LID strategies. Accordingly, based on approved grading plans, the City of Los Angeles Bureau of Engineering requires the completion of an Erosion Control Plan Checklist, which incorporates County Department of Public Works' Erosion Control Notes and is intended to ensure proper control to avoid the deposition of silt and debris onto the public right-of-way, adjacent neighboring properties and the MS4 system. Requirements are based on BMP manual, Part A, Appendix B, which implements the requirements of and is intended to ensure compliance with the Los Angeles County MS4 Permit.⁷¹

In addition, the Applicant would be required to comply with LAMC Section 64.70, including LAMC Section 64.70.02.D, regarding pollution control at building sites, and with the City's grading permit regulations set forth in LAMC, Chapter IX, Article 1, which include standard erosion control measures and inspections to ensure the reduction of sedimentation and erosion during grading. Also, if construction should occur during the rainy season (October 1st to April 14th), a wet weather erosion control plan must be prepared pursuant to the "Manual and Guideline for Temporary and Emergency Erosion Control," adopted by the Los Angeles Board of Public Works and incorporated into the City's Development Best Management Practices Handbook, Part A, Construction Activities, cited above.

Through compliance with LAMC Section 64.70.02 regarding pollution discharge control, and the City's grading regulations, construction of the Project would control stormwater pollutant discharges in a manner that would not cause a violation of an applicable water quality standard in receiving waters defined as Waters of the State (i.e., Los Angeles River). Additionally, with regulatory compliance, the Project would not result in contamination of Waters of the State to a degree that would create a hazard to the public

⁷⁰ City of Los Angeles Development Best Management Practices Handbook, Part A, WEECP BMP Selection Worksheet, http://www.lastormwater.org/wp-content/files_mf/parta.pdf. Accessed July 6, 2018.

⁷¹ City of Los Angeles Bureau of Engineering, Erosion Control Plan Submittal Requirements, https://engpermits.lacity.org/bpermits/bdocs/plan_check/erosion_control_plan_submittal_requirements_and_checklist_3_17_2015.pdf. Accessed June 4, 2018.

health through poisoning or through the spread of diseases or a nuisance that would be injurious to health, or affect an entire community, neighborhood, or any considerable number of persons, or occur as a result of the treatment or disposal of wastes. **Accordingly, required compliance with applicable City regulations would ensure that Project construction would not create a significant impact by degrading surface water quality, or by causing a violation of applicable Water Quality Standards. No mitigation measures are required.**

(b) *Groundwater Quality*

As described in the *Geotechnical Report*, Appendix F of this Draft EIR, the global groundwater table below the Project Site was encountered at a depth of 120 feet bgs and the historical high groundwater level has been between 100 to 120 feet bgs. As described in the Phase I/II ESA, no water treatment, wastewater treatment/disposal systems, water or oil and gas wells, pits/ponds/lagoons, cisterns, sumps or drains were observed on the Project Site, with the exception of a floor drain located in the 1045 South Olive Street building.⁷² Project excavation would extend to approximately 64 feet bgs (54 feet to bottom of building plus and estimated 10 feet for the foundation). Thus, excavation for the proposed structure would not encounter the static groundwater table below the Project Site at an estimated at 120 feet bgs.

Groundwater seepage from perched groundwater, while limited, occurs in the Downtown area. Perched groundwater is intermittent and typically discontinuous, collecting in relatively shallow zones below ground level, however, the global groundwater table is relatively deep. No groundwater seepage occurs within the Project Site.

As also described in the *Geotechnical Report*, Appendix F of this Draft EIR, perched pockets of groundwater were encountered in borings at the Project Site at depths of 60 feet (Boring B-2) and 85 feet (Boring B-1) in isolated and intermittent zones of water perched on fine-grained soil layers.⁷³ Accordingly, the proposed Project excavation to 64 feet has the potential to encounter perched groundwater pockets. As further discussed in the *Geotechnical Report*, in this part of the City, perched groundwater is typically sporadic, and in many cases explorations that are in close proximity may encounter highly variable groundwater conditions. It is also typical for the perched water to dissipate relatively quickly once encountered. The frequency and intensity of perched groundwater varies seasonally, typically in proportion to the rainfall levels. The presence of perched the groundwater table above the bottom of the planned excavation would require removal (dewatering) during the construction phase of the Project if encountered within the depth of the proposed excavation.

Provisions to address seepage from perched groundwater would potentially be necessary and include geotechnical provisions to assure firm excavation bottoms. These provisions

⁷² Leighton and Associates, Inc., Phase I and Limited Phase II Environmental Site Assessment Update for 1033 to 1057 South Olive Street, January 3, 2018.

⁷³ GeoDesign, Report of Geotechnical Services for 1045 Olive, page 4

include installation of localized sumps and/or gravel trenches to collect and convey groundwater seepage and placement of crushed rock to stabilize compromised excavation bottoms. Significant quantities of groundwater are not anticipated; and if present may dissipate quickly. Any seepage (encountered or rising groundwater) during construction would be managed through a de-watering program. In a de-watering program, a discharger must demonstrate that the discharges shall not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters, and perform reasonable potential analysis using a representative sample of groundwater or wastewater to be discharged. The discharger must also obtain and analyze (using appropriate methods) a representative sample of the groundwater to be treated and discharged under the General NPDES Permit Order. The analytical method used shall be capable of achieving a detection limit at or below the minimum level. The discharger must also provide a feasibility study on conservation, reuse, and/or alternative disposal methods of the wastewater and provide a flow diagram of the influent to the discharge point.⁷⁴

Under LAMC Section 64.70.03.A.1(d), the MS4 Sewer Permit for Los Angeles provides that non-stormwater discharges, including natural flows such as uncontaminated groundwater infiltration, shall be exempt from non-stormwater discharge prohibitions. This exemption would likely be applicable to the Project Site since the perched groundwater would be naturally occurring. As discussed in the *Phase III ESA* that is provided in Appendix H of this Draft EIR, contamination of groundwater from such sources as LUSTS and other listed sites is not anticipated at the Project Site.

In addition, polluted soils or other features have not been identified on the Project Site that, if exposed to rainfall during construction, could potentially cause pollutants to enter underlying perched groundwater or the groundwater table via percolation. Potential percolation would be reduced through implementation of required construction BMPs (such as covering exposed soils and stockpiles during rainfall) and further reduced through required soils management pursuant to Mitigation Measure, HAZ-MM-3, discussed in Section IV.G, *Hazards and Hazardous Materials*, of this Draft EIR. Under a soils management plan, any contaminated soils that may be encountered would be treated or covered to reduce exposure. In addition, BMPs would be implemented during construction to prevent drainage into the groundwater supply during rain storms. This would prevent any water-borne pollutants that may be present in the environment from entering the groundwater supply. Also, Mitigation Measure HAZ-MM-4 provides protections to avoid the risk associated with removal of any potential USTs and related infrastructure, to the extent any USTs may exist on the Project Site or within the proposed construction footprint outside of the Project Site. Should perched water be unexpectedly identified as contaminated, the perched water would be collected and transported off-site

⁷⁴ Los Angeles Regional Water Quality Control Board, Order No. R4-2013-0095, General NPDES Permit No. CAG994004, Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, June 6, 2013, page 28, http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/permits/general/npdes/r4-2013-0095/Dewatering%20Order.pdf. Op. Cit., pages 4-8. Accessed May 7, 2018.

for treatment at an approved facility, pursuant to regulatory provisions that require proper handling and disposal of water from the Project Site. Precise measures, should they be required, would be determined during preparation of the SMP; and would be conducted in accordance with the LARWQCB's *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties*.⁷⁵ LARWQCB's discharge requirements ensure that dewatering and discharge of groundwater during construction would not impact groundwater quality.

Regulatory compliance and the implementation of best management practices during Project construction would reduce the Project's potential to result in runoff and/or infiltration of any contaminants into the groundwater table or perched groundwater areas. Any encountered groundwater is anticipated to be naturally occurring and uncontaminated. As such, dewatering would be exempt from the requirements of Municipal Code Section 64.70.03.A. Impacts with respect to groundwater contamination during construction would be less than significant.

(2) Operation

(a) Surface Water Quality

As described above, Project Site is currently developed and/or paved; and estimated to be approximately 98 percent impervious. The existing runoff rate at the Project Site is 1.95 cfs.⁷⁶ The Project Site currently has no means of capture or treatment for stormwater runoff; and drainage is conveyed off-site via sheet flow into catch basins in S. Olive Street and W. 11th Street, where flows traverse through the MS4 and ultimately into the Los Angeles River.

During Project operation, the Project could generate pollutants of concern due to household activities that require the use of chemicals and cleaners and generate trash, the use landscaping products and use of automotive products, thus contributing to the general urban runoff of pollutants in the Project vicinity. Runoff from urban sites generally have the potential to contain pollutants such as nutrients, pesticides, organic compounds, sediments, oil and grease, suspended solids, metals, gasoline, pathogens, and trash and debris among other pollutants. Untreated stormwater runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats.

As described in more detail in the regulatory section above, the Project is required to address potential adverse effects on water quality through the incorporation of BMPs and LID features to capture and treat the Project Site's runoff per the applicable provisions of

⁷⁵ Los Angeles Regional Water Quality Control Board, Los Angeles Regional Water Quality Control Board Basin Plan, http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/. Accessed June 4, 2018.

⁷⁶ David Evans and Associates, Preliminary Hydrology Study, page 5.

City's LID Ordinance.⁷⁷ The requirements would limit the amount of runoff to a "first flush" volume equal to the greater of an 85th Percentile 24-hour or 0.75-inch rainfall event; and require the use of (in priority order to the maximum extent feasible) infiltration basins or trenches, rainwater harvesting cisterns for irrigation reuse, and/or biofiltration via planter boxes, basins, or proprietary treatment devices.

The *Preliminary LID Report* that was prepared for the Project provides design recommendations for a drainage system that would collect rainfall from the rooftop and terrace areas, treat/filter the water flow and convey it to the groundwater and/or MS4 system consistent with LID requirements. The Project includes approximately 11,290 square feet of landscaping area in the roof-top and terrace areas that would absorb rainfall in contrast to the impervious areas that are currently present on the Project Site. Rainwater falling within the landscaped areas and rainwater falling in the non-landscaped roof-top and terrace areas would be channeled to the treatment components of drainage system. The design of the system would capture the 85th percentile storm occurrence (i.e., the first 1.0 inch of runoff flow during storm events as defined in the City's LID Ordinance).⁷⁸

Accordingly, the Project would reduce the amount of run-off from the Project Site compared to the existing condition. Under the existing condition, the Project Site is estimated to generate 2.73 cfs during a 50-year storm event with a rainfall of 5.8 inches. With development, the Project Site would generate 2.70 cfs during a 50-year storm, an approximately 1 percent decrease in runoff.

The preliminary design identifies two systems that could potentially be implemented to meet the LID requirements. These include (i) a Torrent Resources Maxwell Plus drywell system (MWP) and a (ii) capture and reuse system (possibly including biofiltration). In the case of the MWP, the water flow that is collected on the Project Site would be infiltrated into the ground below the Project Site. In the second case, it would be reclaimed for irrigation of Project landscaping and/or conveyed to the local drainage system.

The Preliminary LID Report proposes as a first choice the construction of the MWP drywell system to capture and manage runoff expected from the Project development, subject to confirmation that such a system would not adversely impact the performance of the foundation system and that it would be in conformance with City's Bureau of Sanitation guidelines and regulations.⁷⁹ Such a system would infiltrate water flow to the groundwater

⁷⁷ City of Los Angeles Development Best Management Practices Handbook, Low Impact Development Manual, Part B.

⁷⁸ The calculation of the 85th percentile rainfall depth, the prevailing depth as it is greater than 0.75 inches, is provided in Appendix B of the Preliminary LID Report, Appendix I-2 of this Draft EIR. The calculation is based on rainfall data taken from the County of Los Angeles 2006 Hydrology manual and the Los Angeles County GIS Hydrology map.

⁷⁹ According to the Project's geotechnical report, stormwater infiltration is feasible at the site provided infiltration is performed in a manner that does not adversely impact the performance of the foundation system and is in conformance with City of Los Angeles Bureau of Sanitation guidelines and regulations. Deep drywells are feasible within the footprint of the proposed tower and parking structure. However,

lying below the Project Site. The proposed MWP would have nine settling chambers above the infiltration zone that allow only pre-treated water to enter the infiltration zone below. The Project would require a total of two drywells servicing the entire Project Site that would be connected to the drainage/plumbing system within the building. The proposed system is currently designed to have a total depth of 40 feet below the lowest subterranean level. In the event that the drywell fails (clogs up) or a storm greater than an 85th percentile storm occurs, an overflow pipe would be installed to drain out to one of the adjacent catch basins located on the corner of Olive Street and 11th street.

If the MWP were not implemented, collected water would be reused or partially reused with the remaining amount being treated through the use of biofilters located within the Project's outdoor landscape areas, and any potential overflow conveyed to the local drainage system. Biofilters are landscaped facilities that capture and treat storm water runoff through a variety of physical and biological treatment processes. Runoff would be treated and detained without allowing seepage to the underlying soil. Solid particles would be trapped in filter inserts and down spout filters. Potential pollutants would be further removed as the runoff passes through the biofilter soil layer, then collected and conveyed to the City storm water system. Some of the water collected within the biofilter would evaporate. Water flows from the off-site parkways adjacent to the Project Site would be managed through the incorporation of permeable pavement within the parkway.

In accordance with LID requirements, an O&M program would be required to ensure proper operation of the drainage system. The program would include such measures as inspection of the system especially after every storm, debris removal, cleaning of gutters, replacement of filters as necessary, and preparation of a maintenance log. With the implementation of LID BMPs and compliance with applicable regulations the Project would result in a net reduction of pollutants compared to existing conditions, and runoff would be treated to meet regulatory requirements. As such, operation of the Project would not result in discharges that would result in a violation of a Water Quality Standards in Waters of the State (i.e., Los Angeles River). The Project would also not result in contamination of the quality of the Waters of the State by discharging waste to a degree that would create a hazard to the public health through poisoning or through the spread of diseases or a nuisance that would be injurious to health, affect an entire community or neighborhood, or any considerable number of persons, or occur during or as a result of the treatment or disposal of wastes. Rather, the Project would improve water quality from the current condition of the Project Site with implementation of the LID BMPs. **Therefore, Project operation would not create a significant impact by degrading surface water quality or by causing a violation of applicable water quality standards or waste and discharge requirements. Mitigation measures are not required.**

site-specific field percolation testing would be required to develop design infiltration rates. GeoDesign, Inc., Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, March 2, 2018, page 13.

(b) Groundwater Quality

Since the groundwater table at the Project Site was encountered at a depth of 120 feet bgs, and the depth of the Project's lowest subterranean level and foundation would be 64 feet bgs, the building structures are not expected to encounter the groundwater table below the Project Site.⁸⁰ As described above, the Project would provide a drainage system that would collect rainfall from the rooftop and terrace areas, treat/filter the water flow and convey it to the groundwater and/or local MS4 system consistent with LID requirements. Two potential systems have been proposed. If the MWP system were to be implemented the collected water would be infiltrated to the groundwater only after treatment. Under the alternative design, no water would be infiltrated to the groundwater and there would be no impacts to groundwater quality⁸¹. As described above, the MWP system is the preferred system per the LID ordinance. However final design is subject to approval by Department of Public Works during the City's plan review and approval process. Subject to that review, the alternative design may be selected.

Source control measures under the City's LID, including good housekeeping, require that hazardous materials used during operation of the Project (such as small quantities of cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance) be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations, such that no hazardous materials would be exposed to or otherwise would adversely impact groundwater.

The Project's subterranean levels have the potential to intercept underlying perched groundwater. Although subterranean floors would be waterproofed, the potential occurs for some seepage into the structure's subterranean interior. All subterranean structures below the water table are required to install other pumping systems. Any seepage would be pumped and infiltrated into the surrounding soils. If infiltration is not feasible, LAMC Section 64.70.03.A.1(d) provides that non-stormwater discharges, including natural flows such as uncontaminated groundwater infiltration, shall be exempt from non-stormwater discharge prohibitions. As such, any groundwater seepage could be discharged to the MS4 system as an alternative option. **Therefore, with implementation of LID requirements, including measures ensuring that only pre-treated water enter the infiltration system, the operation of the Project would not create a significant impact by degrading groundwater quality or by causing a violation of any water quality standards or waste discharge requirements or otherwise substantially degrading surface or ground water quality and no mitigation measures are required.**

⁸⁰ GeoDesign Incorporated, Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018.

⁸¹ GeoDesign Incorporated, Draft Report of Geotechnical Engineering Services Proposed High-Rise Tower Development, 1045 South Olive Street, Los Angeles, California, March 2018.

Threshold b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin? Less than Significant Impact.

The Project does not propose groundwater withdrawal. As described above, the historical high groundwater level has been between 100 and 120 feet bgs, and when measured in 2015, the groundwater table was encountered at a depth of 120 feet bgs. The Project footings would not extend to this level. There are no groundwater production wells within or adjacent to the Project Site. Further, as the Project Site is already approximately 98 percent developed with impervious surfaces, there is currently no or minimal recharge occurring at the Project Site. Furthermore, the required LID Ordinance BMPs, including the proposed MWP, if implemented, would not contribute to depletion of groundwater or interfere with recharge, but rather would potentially contribute to an increase in groundwater recharge. **Thus, the Project would not substantially decrease groundwater supplies and groundwater recharge; and impacts would be less than significant. No mitigation is required.**

Threshold c) Would the Project substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would:

(i) result in substantial erosion or siltation on- or off-site?
Less than Significant Impact.

(1) Construction

The Project would require grading and excavation for building foundations which could affect drainage at the Project Site during the excavation portion of construction. However, there are no streams or rivers in the near vicinity of the Project Site whose course or streambed would be altered by the Project. Further, the Project Site, nearly totally covered by impervious developed uses, would decrease the amount of impervious surfaces at the Project Site during construction. All construction activities would be conducted in accordance with LAMC Sections 64.70 and 64.72, including incorporation of BMPs set forth in the Development Best Management Practices Handbook, Part A (Construction Activities). The Project Site's relatively flat drainage patterns and the prevention or reduction of surface runoff during construction would prevent substantial alterations to drainage patterns and/or erosion on-site or off-site. Standard construction phase BMPs, required as part of the permitting process, would decrease the potential for significant erosion or siltation from soil disturbance associated with construction of the Project. Further, if the Project requires grading activities during the rainy season (October 1 through April 14), then a Wet Weather Erosion Control Plan (WWECP) would be prepared that would include BMPs to address potential erosion effects. **Therefore, the Project construction would not substantially alter the existing drainage pattern of the Project Site or area, including through alteration of the course of a river or stream**

or increase in impervious surfaces in a manner that would result in substantial erosion or siltation on- or off-site. As such, impacts during construction would be less than significant and no mitigation measures are required.

(2) Operation

The Project is an infill development within a fully urbanized environment and, as such, the Project Site is not an area of exposed natural land and water courses. As described above, the Project would comply with LID requirements to manage stormwater runoff including installation of stormwater management systems. Proposed systems that would capture and potentially reuse surface runoff include LID Ordinance mandated BMPs that are proposed to include either a drywell system (MWP) or a capture and reuse system potentially combined with a bio-filtration system. These systems would reduce the volume of water required for capture and reuse under the LID; and would comply with the procedures set forth in the City of Los Angeles' LID Handbook. With implementation of the Project's proposed drainage system, Project site runoff would be reduced in quantity, with residual drainage flowing to the same catch basins located in S. Olive Street and W. 11th Street and into the MS4 system. This system would have no contact with exposed soils or erodible surfaces that would generate siltation if exposed to surface water runoff. Accordingly, operation of the Project would not substantially alter drainage patterns across the site, or result in erosion or siltation on-site or off-site. **Therefore, Project operation would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation on- or off-site and, as such, operational impacts would be less than significant and no mitigation measures are required.**

Threshold c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would:

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? Less than Significant Impact.

The rate and amount of surface runoff is determined by multiple factors, including topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater.

(1) Construction

Although grading would occur throughout the Project Site during construction, the resulting ground disturbance would not significantly alter its overall flat topography and would not substantially alter the existing drainage pattern of the site or area. As discussed under response to Threshold c(1), above, the Project would implement BMPs in accordance with the City's LID ordinance and as implemented under the City's

Development Best Management Practices Handbook, Part A: Construction Activities (Appendix A), thus preventing uncontrolled runoff during construction. Water would be used during the temporary construction phases of the Project (e.g., for dust suppression). However, this water would be mechanically and precisely applied in accordance with the regulatory requirements, and would furthermore be controlled with required construction BMPs under the City's Development Best Management Practices Handbook to prevent discharges. **Therefore, the Project construction would not substantially alter the existing drainage pattern of the site or area, or substantially increase in the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site. As such, impacts would be less than significant. No mitigation measures are required.**

(2) Operation

As described above, Project Site is currently developed and/or paved; and estimated to be approximately 98 percent impervious; and the existing runoff rate during a 50-year storm event, is 2.73 cfs. Surface runoff exits the Project Site via sheet flow to the MS4. The Project operation would not substantially alter the existing drainage pattern of the Project Site, area, or receiving waters, as it would be constructed within the existing urban street grid network, which has the capacity to accommodate 50-year storm events. The Project would collect rainwater within landscaping areas and through the collection of water within in hardscape areas via gutters. Collected water would be conveyed through the Project's on-site drainage system and would reduce existing runoff. As described in the *Preliminary Hydrology Study*, the Project is estimated to produce 2.70 cfs of runoff during a 50-year storm event, which represents an approximately one percent decrease from current conditions. In addition, the Project would install a stormwater management system that would capture and substantially reduce surface runoff. The Project's on-site drainage system, which would comply with LID Ordinance specifications regarding design, review and maintenance, would ensure that the Project meets drainage control requirements. Implementation of these systems would not alter the existing drainage patterns and would decrease the amount of off-site drainage flows. **Therefore, Project operation would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site and, as such impacts would be less than significant. No mitigation measures are required.**

Threshold c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would:

- (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? Less than Significant Impact.***

(1) Construction

Water would be applied intermittently during grading, excavation, and site preparation construction phases of the Project (e.g., for dust suppression). However, this water would be mechanically and precisely applied in compliance with the City's Development Best Management Practices Handbook, Part A, Appendix A, which would require that any non-storm water used during construction activities, such as dust-control water, be contained within the Project Site and not discharged. In addition, non-storm water would, in general, infiltrate or evaporate. Therefore, the construction of the Project would not result in a substantial increase in the rate or amount of non-storm water runoff that would exceed the capacity of existing or planned stormwater drainage systems.

Construction activities would also comply with LAMC Section 64.70 and 64.72, which describe the LID requirements for construction projects and compliance with City of Los Angeles Development Best Management Practices Handbook, Part A, Appendix A. BMP requirements under Appendix A include but are not be limited to, erosion control, sediment control, reduced exposure of soils stockpiles, proper disposal of trash and construction waste, containment of non-storm water runoff within the Project Site, retention of concrete wastes on-site, proper storage for fuels, oils, solvents and other toxic materials and additional, similar BMPs. Because the Project would comply with all existing LID regulations, Project construction would not result in substantial additional sources of polluted runoff. **Therefore, the Project's construction activities would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant and no mitigation measures are required.**

(2) Operation

The Project Site is currently developed and primarily impervious so that rainfall and other water sources do not infiltrate the site. The Project would implement an LID system to collect, treat, and decrease existing runoff. The water would be collected from pervious landscaped area and impervious hardscaped areas with channelization. Further, as described above under Threshold a), the existing 27-inch MS4 and catch basins adjacent to the Project Site have been designed to accommodate the tributary area's Q_{10} runoff and, as such, do not exceed their Q_{10} design capacity. As described in the Setting section above, the adjacent drains are consistent with the Q_{10} runoff capacities of the City's drain system, which is designed to accommodate 10-year storm events. Larger storm events runoff (e.g., a 50-year storm event) is accommodated by the curb and gutter between Figueroa Street and the Los Angeles River.⁸² According to FEMA maps, this section of the City is zoned "X," which indicates that the Los Angeles River Channel in this area is designed to accommodate a 100-year event.⁸³ As such, the receiving drainage body (the

⁸² David Evans and Associates, Inc., Preliminary Hydrology Study, page 5, Appendix I-1 of this Draft EIR.

⁸³ Federal Emergency Management Agency, Flood Insurance Rate Map, Panel 06037C1620F, September 26, 2008, <https://msc.fema.gov/portal/search?AddressQuery=1045%20south%20olive%20st%2C%20los%20angeles#searchresultsanchor>. Accessed January 2018.

channelized river) and would not be overwhelmed by drain and curb and gutter runoff in the area in a 50-year storm.

More importantly the Project would reduce the amount of run-off from the Project Site during a 50-year storm event from 2.73 cfs to 2.70 cfs, an approximately 1 percent decrease in runoff. By reducing the volume of runoff from the Project Site, the Project would reduce impacts on local catch basins generally and would continue to first direct flows to the two catch basins immediately adjacent to the Project Site, which are operating below their existing capacity. The Project's stormwater runoff would not exceed the capacity of existing or planned stormwater drainage systems. **Therefore, the Project's operation would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Thus, impacts would be less than significant and no mitigation measures are required.**

Threshold c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would:

(iv) impede or redirect flood flows? Less than Significant Impact.

As described above, the Project would be constructed within the existing urban street grid network, which has the capacity to accommodate 50-year storm events. As described in the analysis of Threshold c (iii), above, the drainage pattern of storm water runoff flows in the Project vicinity is within hardscape portions of local roadways, gutters, and underground drainage infrastructure. Surface storm water flows along the roadways flow to the concrete lined Los Angeles River channel, which is designed to accommodate a 100-year flood event. Project implementation would not impede or redirect surface drainage or flood flows. **Impacts would be less than significant and no mitigation measures are required.**

Threshold d) Would the Project, if in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation? Less than Significant Impact.

The Project Site is not located within or adjacent to areas exposed to flood hazards, tsunami events or seiche events. The Project Site is mapped by FEMA as lying within a Zone X area, which is an "other Flood Area" but not a special flood hazard area.⁸⁴ Such areas are located outside of the base flood areas established by FEMA for setting flood insurance requirements. According to ZIMAS, the Project Site does not lie within a flood

⁸⁴ Federal Emergency Management Agency, Flood Insurance Rate Map, Panel 06037C1620F, September 26, 2008, <https://msc.fema.gov/portal/search?AddressQuery=1045%20south%20olive%20st%2C%20los%20angeles#searchresultsanchor>. Accessed January 2018.

zone.⁸⁵ Further, the DWR indicates that the Project Site does not lie within a 100-year floodplain.⁸⁶

Further, the Project is not exposed to potential adverse effects associated with seiche or tsunami events. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant disturbance undersea, such as a tectonic displacement of sea floor associated with large, shallow earthquakes. During such events, mudflows and flooding can occur as a result of downslope movement of soil and/or rock under the influence of gravity.⁸⁷

The Project Site is located in an area of relatively flat topography and urban development, with no hillsides or enclosed bodies of water nearby, and as such, there is no potential for inundation resulting from a seiche or mudflows. The Project Site is located approximately 16 miles inland (northeast) from the Pacific Ocean, and therefore, would not be subject to a tsunami. Furthermore, the Project Site is not located within a City-designated inundation area for the Los Angeles River, levees, or upstream dams.⁸⁸

As the Project Site is not subject to events associated with flood zones, seiche potential or tsunami potential, the Project Site would not be subject to inundation from such events that could carry on-site pollutants off-site. Impacts would be less than significant and no mitigation measures would be required.

Threshold e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? Less than Significant Impact.

(1) Water Quality Control Plans

As discussed in the regulatory section above, and elaborated upon in the subsequent impact analyses, the Project falls within the jurisdiction of water quality plans with related regulations and permitting requirements that assure that development projects are in compliance with clean water policies. Most notably, the Project falls under the jurisdiction of the LARWQB (Region 4) Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties; and the RWQCB is also given authority to issue waste discharge requirements, enforce actions against stormwater discharge violators, and monitor water quality. In California, the NPDES stormwater permitting program is administered by the

⁸⁵ City of Los Angeles Department of City Planning, Zoning Information and Mapping Access System (ZIMAS), Parcel Profile Report: 1045 S. Olive Street. Generated January 8, 2018.

⁸⁶ California Department of Water Resources, Best Available Map (BAM) System; <http://gis.bam.water.ca.gov/bam/>. Accessed January 2018.

⁸⁷ City of Los Angeles CEQA Thresholds Guide, 2006, page E.1-2, <https://www.google.com/search?q=city+of+los+angeles+ceqa+thresholds+guide+2006&rlz=1C1CHBFenUS753US753&oq=city&aqs=chrome.2.69i59j69i57j69i59j0l3.2876j0j8&sourceid=chrome&ie=UTF-8>. Accessed August 13, 2018.

⁸⁸ City of Los Angeles General Plan, Safety Element Exhibit G, Inundation & Tsunami Hazard Areas, March 1994, <http://cityplanning.lacity.org/cwd/gnlpn/saftyelt.pdf>. Accessed on January 16, 2017. Also, ZIMAS, Parcel Profile Report: 1045 S. Olive Street. Accessed May 10, 2018.

SWRCB; and the County of Los Angeles and the City are two of the Co-Permittees under the Los Angeles County NPDES MS4 Permit, and as such are required to implement development planning guidance and control measures regarding water quality impacts from new development.

The Los Angeles County MS4 Permit contains provisions for implementation and enforcement of the Stormwater Quality Management Program; and includes a LID Plan that designates BMPs that must be used by projects to address water infiltration, filtering, treatment and peak-flow discharge. The City supports the requirements of the Los Angeles County MS4 Permit through the City's LID Handbook, which provides guidance to developers of newly developed projects for compliance with regulatory standards. The Project is also within the jurisdiction of the Water Quality Compliance Master Plan for Urban Runoff which was developed by the City's Department of Public Works, which includes within its provisions the description of BMPs required by the City for stormwater quality management.

(2) Sustainable Groundwater Management Plans

Also, in regard to groundwater management, the City is a participant in the WRD which is categorized as a High Priority basin pursuant to the SGMA. The WRD has provided evidence that satisfies the requirements of the SGMA, demonstrating compliance with applicable portions of the California Water Code, documenting that the underlying Central Subbasin has operated within its sustainable yield over a period of at least 10 years; and that the WRD satisfies SGMA's objectives by promoting sustainable management of the groundwater in the Central Subbasin.

(3) Project Compliance with Applicable Plans

The Project would incorporate into its design an on-site drainage system that would meet regulatory requirements of the applicable plans for the protection of water resources. The on-site-drainage system would collect rainfall from the rooftop and terrace areas, treat/filter the water flow and convey it to the groundwater and/or local storm drain system. This on-site drainage system would provide BMPs in accord with the City's LID requirements.

The Project's potential impacts regarding water quality are evaluated under Threshold a) above. As indicated in that analysis, with the implementation of the Project's on-site drainage system, the Project would have less than significant impacts on both surface and groundwater quality during construction and operation phases. The Project's potential impacts regarding groundwater supplies and groundwater recharge are evaluated under Threshold b) above. As indicated, the Project would have a less than significant impact. As further indicated in those analyses, with Project implementation, the amount of stormwater from the Project Site would be reduced and its quality would be improved as compared to existing conditions. Also, if the proposed drywell system is implemented the Project's drainage system would improve groundwater recharge.

The Project would thereby implement the necessary BMPs to support the applicable plans; and the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant and no mitigation measures would be required.

e) Cumulative Impacts

As listed in Chapter III, *General Description of Environmental Setting*, of this Draft EIR, the City has identified 195 related projects; i.e., recently completed, under construction or proposed development projects. Related projects No. 6 (Aven Project), No. 16, (Oakwood Apartments) and No. 60 (Oakwood Apartments) are located within the Project's block and adjacent to the Project Site. While listed as related projects, construction of these adjacent projects has been completed. Two future related projects are located on the south Side of Olive Street in the immediate vicinity of the Project Site. Related Project No. 190 (DTLA South Park Project – Mack Urban Site 2) is located caddy-corner to the Project Site and No. 191 (DTLA South Park Project – Mack Urban Site is located directly across the Project Site. Both of these related projects are located at the intersection of Olive Street and 11th Street.

Ground elevations in the vicinity of the Project Site generally fall to the south and, therefore, related projects farther south of the Project Site would not contribute to cumulative impacts in catch basins serving the Project Site. With east-west elevations in the Project Site vicinity somewhat flat, flows from related projects located to the north of the Project Site that might most affect local conditions would be those located along Olive Street, including Related Projects No. 3, No. 28, No. 32 No. 61 and No. 145. Notwithstanding, all of the related projects could potentially affect the volume of stormwater runoff and pollutant loading in stormwater runoff in their immediate vicinity and other downhill locations, thus potentially affecting cumulative impacts to hydrology and water quality.

However, as with the Project, all of the related projects are located within the highly urbanized portion of Los Angeles, predominantly the Downtown area, which includes mostly developed, impervious project sites. Accordingly, their potential to generate a notable amount of new impermeable surface is limited; and any potential increase would be addressed by the specified standards established in the City's LID Ordinance. Pursuant to these required standards, other related projects would be required to capture and manage the greater of the first three-quarters of an inch of runoff flow during storm events as defined in the City's LID Ordinance BMPs, or the 85th percentile rainfall depth, through one or more of the City's preferred SUSMP improvements: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible. With these measures, many related projects on infill development sites would have reductions in off-site drainage flows and surface pollutants as compared to current conditions. Stormwater flows in the MS4 lines and catch basins in the vicinity of the Project would be reduced. As noted above, through compliance with LID requirements,

the Project would reduce its estimated run-off volume compared to existing conditions and therefore would not contribute to adverse cumulative surface runoff.

The Related Project No. 190 and Related Project No. 191 development sites at the intersection of Olive Street and 11th Street, are currently used as parking lots. As such, they have impervious surfaces with uncontrolled runoff; and they are subject to accumulation of automotive pollutants that can be carried off-site. Thus, conversion of those sites to developed uses in compliance with the City's LID Ordinance, and the City's requirements for residential projects to have outdoor common open space, of which at least 25 percent of exterior open space is required to be landscaped, would help to reduce the amount of drainage flow and improve water quality at the Project's intersection of 11th Street and Olive Street. It was noted above that the catch basin at the southwest corner of 11th Street and Olive Street is currently at its allowable capacity, while the two catch basins along the Project frontages have excess capacity. The on-site drainage systems for these potential related project buildings would take into account efficient adaptation to the existing drainage system. Each of these related projects would control its off-site flows accordingly, with options to direct flows to Olive Street or 11th Street. As described for the Project analysis above, the storm drain system that serves the Project Site has been designed to convey the 10-year storm in combination with the curb and gutter between Figueroa Street and the Los Angeles River, which currently has the capacity to convey a 50-year storm event.⁸⁹

All related projects that include new construction also have the potential to contribute to pollutant loading during construction and operation, which could potentially result in cumulative impacts to water quality. However, as with the Project, all new construction would be subject to LAMC Section 64.70.02 regarding pollutant discharge control, including NPDES permit Waste Discharge Requirements for both construction and operation. Each related project greater than one-acre in size would be required to develop a SWPPP for construction and grading activities. In addition, all new construction plans would be evaluated individually to determine the appropriate BMPs and treatment measures to minimize the related projects impacts to water quality. Operation of the related projects would also be subject to applicable LID requirements, including implementation of operational BMPs to address the quality of water runoff from surfaces such as driveways, parking lots, and parking structures. Pursuant to the City's LID Ordinance, related projects would be required to implement LID BMPs, through one or more of the City's preferred improvements: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible. As described above, the Project would implement LID BMPs, in addition to source control and treatment control BMPs, consistent with applicable regulatory requirements, that would ensure less than significant Project impacts on surface water and groundwater quality. With compliance

⁸⁹ David Evans and Associates, Inc., Preliminary Hydrology Study, page 5, Appendix I-1 of this Draft EIR.

to existing applicable regulations, such as the City's LID Ordinance requirements, the related projects would also be unlikely to cause or increase surface water contamination.

In cases where the related projects would require dewatering during excavation, dewatering, treatment and disposal of groundwater would be conducted in accordance with the LARWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties would avoid adverse effects on surface water, as well as groundwater quality. Thus, regulatory measures would avoid significant impacts on drainage/flooding conditions and the quality of water reaching the public drainage system. For the reasons stated above, development from related projects would be expected to improve drainage conditions in the Downtown area as well as the quality of water runoff from developed areas thereby supporting plans developed for water quality control and sustainable groundwater programs. **Therefore, cumulative impacts to hydrology and water quality would be less than significant.**

f) Mitigation Measures

The Project would result in less than significant impacts with respect to hydrology and water quality. Therefore, no mitigation measures are required.

However, as analyzed in Section IV.G, *Hazards and Hazardous Materials*, of this Draft EIR, mitigation measures HAZ-MM-1 (soil management plan) and HAZ-MM-2 (UST assessment) are being implemented to reduce potential Project impacts that could result from the exacerbation of existing hazardous conditions associated with contaminated ground soils and/or underground storage tanks. Investigations and analysis to date that are reflected in Section IV.G of this Draft EIR have not indicated the presence of contaminated soils and groundwater within the Project Site. However, these mitigation measures would further ensure that the Project would not result in any significant impacts with respect to groundwater or surface hydrology.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.I. Land Use and Planning

1. Introduction

This Section evaluates the Project's potential land use impacts based upon whether the Project is consistent with and/or would conflict with the implementation of land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The plans, policies and regulations that are the focus of this section of the Draft EIR are those that address land use development patterns and characteristics that have implications for the environment effects resulting from development.

Analyses of consistency and/or potential conflicts with plans that are more directly related to other environmental topics are addressed in other sections of this Draft EIR. Section IV.A, *Aesthetics*, evaluates Project consistency with the Urban Design Chapter of the General Plan Framework Element, Downtown Design Guide and MyFigueroa Streetscape Project; Section IV.B, *Air Quality*, evaluates Project consistency with the Air Quality Management Plan; Section IV.F, *Greenhouse Gas Emissions*, evaluates Project consistency with the City's Green New Deal (Sustainable City pLAN 2019), Southern California Association of Governments' (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS); and the California Air Quality Updated Climate Change Scoping Plan. Section IV.K *Population and Housing*, evaluates Project consistency with the 2016-2040 RTP/SCS and Regional Housing Need Assessment; Section IV.M, *Transportation and Traffic*, evaluates the more focused traffic provisions of the City's General Plan Mobility 2035 Element, and the Los Angeles County Congestion Management Plan.

2. Environmental Setting

a) Regulatory Framework

(1) State and Regional

(a) *SCAG Regional Transportation Plan/ Sustainable Communities Strategy*

On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 RTP/SCS. The 2016-2040 RTP/SCS presents the transportation vision for the region through the year 2040 and provides a long-term investment framework for addressing the region's transportation and related challenges. Also, the 2016-2040 RTP/SCS contains baseline socioeconomic projections that are used as the basis for SCAG's transportation planning, and the provision of services by other regional agencies. SCAG's 2016-2040 RTP/SCS projections are discussed further in Section IV.K, *Population, Housing, and Employment* of this Draft EIR. As described in more detail in the analysis below, SCAGs overarching

strategy for achieving its goals is integrating land use and transportation. SCAG policies are directed towards the development of regional land use patterns that contribute to reductions in vehicle miles and improvements to the transportation system. Reductions in vehicle miles traveled reduces impacts regarding traffic, noise, air quality, that energy impacts. Exhibit 5.1 of the 2016-2040 RTP/SCS identifies the Project Site as a High Quality Transit Area (HQTa), an area where local jurisdictions are encouraged to promote growth, housing, and increased densities and intensification of uses and jobs.¹ An analysis of the Project's potential consistency and/or conflict with applicable environmental goals of the 2016-2040 RTP/SCS is evaluated in the analysis below (see Table IV.I-1).

(2) Local

(a) *City of Los Angeles General Plan*

The California planning law requires that every city and county prepare and adopt a long-range comprehensive General Plan to guide future development and to identify the community's environmental, social, and economic goals.

As stated in Section 65302 of the California Government Code, "The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals." The City of Los Angeles General Plan (General Plan) sets forth goals, objectives, policies and programs to provide an official guide to the future development of the City, while integrating a range of state-mandated elements including Land Use, Circulation, Housing, Conservation, Open Space, Safety, Noise and Air Quality. The City's General Plan also includes includes the General Plan Framework, Health and Wellness Element (Plan for a Healthy Los Angeles), and the Central City Community Plan, which is one of the 35 community plans of the Land Use Element. As reflected in the analyses below, both the City's General Plan land use controls and the goals, objectives and policies within individual elements of the General Plan, include numerous provisions that are intended to avoid or reduce potential adverse effects on the environment.

(b) *City of Los Angeles General Plan Framework Element*

The City of Los Angeles General Plan Framework Element (General Plan Framework) establishes the conceptual basis for the City's General Plan. The General Plan Framework sets forth a Citywide comprehensive long-range growth strategy and establishes Citywide policies regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure, and public services. The General Plan Framework provides guidelines for future updates of the City's community plans and does not supersede the more detailed community and specific plans. The General Plan Framework Land Use Chapter

¹ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, <http://scagrtpsc.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed March 21, 2018.

designates Districts (i.e., Neighborhood Districts, Community Centers, Regional Centers, Downtown Center, and Mixed-Use Boulevards) that include standards and policies that shape the scale and intensity of proposed uses with the purpose of supporting the vitality of the City's residential neighborhoods and commercial districts. The establishment of the designated arrangement of land uses and development densities addresses a large array of environmental issues including, but not limited to: reductions in vehicle miles traveled, reductions in noise impacts, improved efficiency in the use of energy, improved efficiency and thus greater service levels within the infrastructure systems, availability of open space, compatibility of land uses, support for alternative modes of transportation and provision of an attractive pedestrian environment.

The Project Site is located within the General Plan Framework's identified Downtown Center, which is defined as an international center for finance and trade that serves the population of the five-county metropolitan region. According to the General Plan Framework, Downtown is the largest government center in the region and the location for major cultural and entertainment facilities, hotels, professional offices, corporate headquarters, financial institutions, high-rise residential towers, regional transportation facilities and the Convention Center. The Downtown Center is generally characterized by a floor area ratio up to 13:1 and is the primary location in the City for high rise buildings.²

The Land Use Chapter of the General Plan Framework states that the General Plan Framework reflects the Downtown Strategic Plan's goals and maintains the Downtown Center as the primary economic, governmental, and social focal point of Los Angeles, while increasing its resident community. In this role, the Downtown Center will continue to accommodate the highest development densities in the City and function as the principal transportation hub for the region. Objective 3.11, which supports this goal is to provide for the continuation and expansion of government, business, cultural, entertainment, visitor-serving, housing, industries, transportation, supporting uses, and similar functions at a scale and intensity that distinguishes and uniquely identifies the Downtown Center. In setting a priority for maintaining this high density and mix of uses in the Downtown Center, and by increasing its resident community, the City would help reduce noise, air emissions and traffic congestion and avoid potential incompatibility between such development and low-density neighborhoods in other areas of the City.

The Housing Chapter of the General Plan Framework focuses on the provision of housing supply to meet the needs of City residents, and as such this component of the General Plan Framework is discussed further in Section IV.K, *Population and Housing*, of this Draft EIR. In regard to the location of housing so as to reduce impacts on the environment, the Housing Chapter states that the intensification of both commercial and residential development which has occurred in the City has been at the expense of the integrity and character of existing residential neighborhoods. It also states that a balance is required

² City of Los Angeles General Plan Framework, Figure 3-1, Long Range Land Use Diagram, Metro, <https://planning.lacity.org/Cwd/Framwk/chapters/03/F31MtoMp.pdf>. Accessed February 24, 2018.

between the need to produce new housing units for all income levels and the desire to conserve the livability and character of existing neighborhoods. The housing goals included therein encourage future housing development near transit corridors and stations.³

The Urban Form and Neighborhood Design Chapter of the General Plan Framework establishes the goal of creating a city that is attractive to future investment; and a city of interconnected, diverse neighborhoods that builds on the strength of those neighborhoods and functions at both the neighborhood and citywide scales. The purpose of the Urban Form and Neighborhood Design Chapter is two-fold: first to support the population distribution principles of the General Plan Framework through proper massing and design of buildings and second to enhance the physical character of neighborhood and communities within the City.⁴ The General Plan Framework does not directly address the design of individual neighborhoods or communities but embodies generic neighborhood design and implementation programs that guide local planning efforts and lay a foundation for the updating of community plans. This Chapter of the General Plan Framework is evaluated in Section IV.A, *Aesthetics*, of this Draft EIR.

The Open Space and Conservation Chapter of the General Plan Framework encourages the use of open space to enhance community and neighborhood character; and provides guidance for overall City provision of open space. The Open Space and Conservation Chapter also establishes guidance to the City in its in preparing more focused policies and regulations, including those of the Community Plans, and Los Angeles Municipal Code (LAMC), as discussed further in Section IV.L.5, *Parks and Recreation*, of this Draft EIR.

The introduction to Economic Development Chapter of the General Plan Framework states that “The Framework Element’s fundamental economic development goals are twofold: to provide the physical locations and competitive financial environment necessary to attract various type of economic development to Los Angeles, and to encourage the geographic distribution of job growth in a manner supportive of the City’s overall planning objectives.”⁵ In so doing, the Economic Development Chapter includes goals, policies and objectives that address the appropriate land use locations for development; thus linking this Chapter of the General Plan Framework to the other Chapters of the General Plan Framework and establishing mutual development objectives for land use and economic development. This Chapter proposes a range of area types to accommodate economic development. As shown on Figure 7-1 of the Economic Development Chapter, the Project Site is located within a designated Redevelopment Project Area (City Center Redevelopment Project Area).

The Transportation Chapter of the General Plan Framework includes proposals for major improvements to enhance the movement of goods and to provide greater access to major

³ City of Los Angeles General Plan Framework, pages 4-1 – 4-2.

⁴ City of Los Angeles General Plan Framework, page 5-1, et. seq.

⁵ City of Los Angeles General Plan Framework, page 7-1.

intermodal facilities. While the focus of the Transportation Chapter is on guidance for transportation investments, the Transportation Chapter also includes goals, policies and objectives that overlap with land use provisions included in other Chapters of the General Plan Framework regarding land use patterns and the development of the pedestrian system as an important component in the arrangement of land use activities. The Transportation Chapter of the General Plan Framework is implemented through the General Plan's Mobility Plan 2035, amended by City Council on September 7, 2016, and is a comprehensive update of the General Plan Transportation Element. The Mobility Plan 2035 is discussed below. An analysis of the Project's potential consistency and/or conflict with applicable goals and policies of the General Plan Framework Element is provided in Table IV.I-2, below.

(c) *Mobility Plan 2035*

The Mobility Plan 2035, adopted by City Council on January 20, 2016, is a comprehensive update of the General Plan Transportation Element. Mobility Plan 2035 provides the policy foundation for achieving a transportation system that balances the needs of all road users, incorporates "complete streets" principles and lays the policy foundation for how future generations of Angelenos interact with their streets, in compliance with The Complete Streets Act (Assembly Bill [AB] 1358).

The purpose of the Mobility Plan 2035 is to present a guide to the further development of a citywide transportation system for the efficient movement of people and goods. While the Mobility Plan 2035 focuses on the City's transportation network, it complements other components of the General Plan that pertain to the arrangement of land uses to reduce vehicle miles traveled and policies to support the provision and use of alternative transportation modalities. The provisions of Mobility Plan 2035 that pertain more specifically to the transportation system are discussed further in Section IV.M, *Transportation and Traffic*, of this Draft EIR.

(d) *General Plan Conservation Element*

The General Plan Conservation Element has the purpose of identifying, preserving, protecting, and managing the City's broad range of natural resources. Conservation Element policies include agricultural lands; animal keeping, nurseries and crop gardens; archaeological and paleontological resources, conservation (no policies), cultural and historical resources; endangered species, equine areas; erosion; fisheries; forest resources; geologic hazard (no policies) natural habitats; hazardous materials; landform and scenic vistas, ocean protection; open space and parks; and fossil fuels.

The focus of this General Plan Element is on the Citywide efforts to protect its natural resources, and to manage those resources. To the extent that this Element refers to the ways in which individual development projects can support the broader Citywide efforts, it cross-references to the California Environmental Quality Act (CEQA) procedures and regulatory measures that are controlling of individual development Projects. Components of this Element that most directly pertain to individual development projects are addressed in the following Sections of this Draft EIR: IV.A, *Aesthetics*; IV.C, *Cultural Resources*,

IV.E, *Geology and Soils*; IV.G, *Hazards and Hazardous Materials*, IV.H, *Hydrology and Water Quality*; and IV.L.5, *Parks and Recreation*.

(e) *General Plan Housing Element*

The Housing Element of the General Plan is prepared pursuant to state law and provides planning guidance in meeting the housing needs that are identified in the SCAG Regional Housing Needs Assessment (RHNA). The Housing Element identifies the City's housing conditions and needs, establishes the goals, objectives, and policies that are the foundation of the City's housing and growth strategy, and provides the array of programs the City intends to implement to create and preserve sustainable, mixed-income neighborhoods across the City. An analysis of the Project's potential consistency and/or conflict with policies of the General Plan Housing Element that focus on the location of housing within the City is provided in Table IV.I-4, below. Further discussion of the General Plan Housing Element regarding the provision of housing stock to meet the needs of the City is provided in Section IV.K, *Population and Housing* of this Draft EIR.

(f) *Health and Wellness Element (Plan for a Healthy Los Angeles)*

The Plan for a Healthy Los Angeles, the Health and Wellness Element of the City's General Plan, provides high-level policy vision, along with measurable objectives and implementation programs to elevate health as a priority for the City's future growth and development.⁶ The Plan includes the following seven goals: 1) Los Angeles, A Leader in Health and Equity; 2) A City Built for Health; 3) Bountiful Parks and Open Spaces; 4) Food that Nourishes the Body, Soul, and Environment; 5) An Environment Where Life Thrives; 6) Lifelong Opportunities for Learning and Prosperity; and 7) Safe and Just Neighborhoods. As such, the provisions of this Plan Element address a number of policies not directly tied to the physical environment. However, included within this General Plan Element are policies pertaining to the arrangement of land uses within the City and building design procedures.⁷ As such, these policies address characteristics of the physical environment that contribute to the public health. with such policies is presented in Table IV.I-5, below.

(g) *Central City Community Plan*

The Central City Community Plan (updated January 8, 2003) is the land use element of the General Plan applicable to the Central City Community Plan (Community Plan) Area. The Community Plan promotes an arrangement of land use, infrastructure, and services intended to enhance the economic, social, and physical health, safety, welfare, and convenience of the people who live, work and invest in the community. By serving to guide development, the Plan encourages progress and change within the community to meet anticipated needs and circumstances, promotes balanced growth, builds on

⁶ Plan for a Healthy Los Angeles, A Health and Wellness Element of the General Plan, March 2015, <http://planning.lacity.org/cwd/gnlpln/PlanforHealthyLA.pdf>. Accessed March 20, 2018.

⁷ Plan for a Healthy Los Angeles, A Health and Wellness Element of the General Plan, March 2015. Policy 2.2, Healthy building design and construction, page 42; and Policy 5.7, Land use planning for public health and GHG emission reduction, page 94.

economic strengths and opportunities while protecting the physical, economic, and social investments in the community to the extent reasonable and feasible.

The Community Plan implements the General Plan Framework at the local level. It fine-tunes the policies of the General Plan Framework and includes land use designations, density limits, building heights and other provisions to implement the development that supports the City's policies and development vision for the future. As described above for the General Plan Framework Element, these are policies intended to reduce adverse impacts on the aesthetic character of the City and to reduce the costs and adverse effects associated with vehicle miles traveled.

The Community Plan's General Land Use Map is shown in **Figure IV.I-1, *Central City Community Plan Land Use Designations***. Figure IV.I-1 shows the boundaries of the Community Plan area and the land use designations in the Project vicinity.










The Central City Community Plan area is composed of nine districts: Civic Center, Bunker Hill, Financial Core, Convention Center/Arena, South Park, Center City/Historic Core, Little Tokyo, Central City East and South Markets.⁸ The physical relationship of the Project Site to the Community Plan's Neighborhoods and Districts is illustrated in **Figure IV.I-2, *Central City Community Plan Neighborhoods and Districts***. As shown in Figure IV.I-2, the Project Site is located within "South Park," whose role within the larger area is to be a mixed-use community with a substantial concentration of housing.

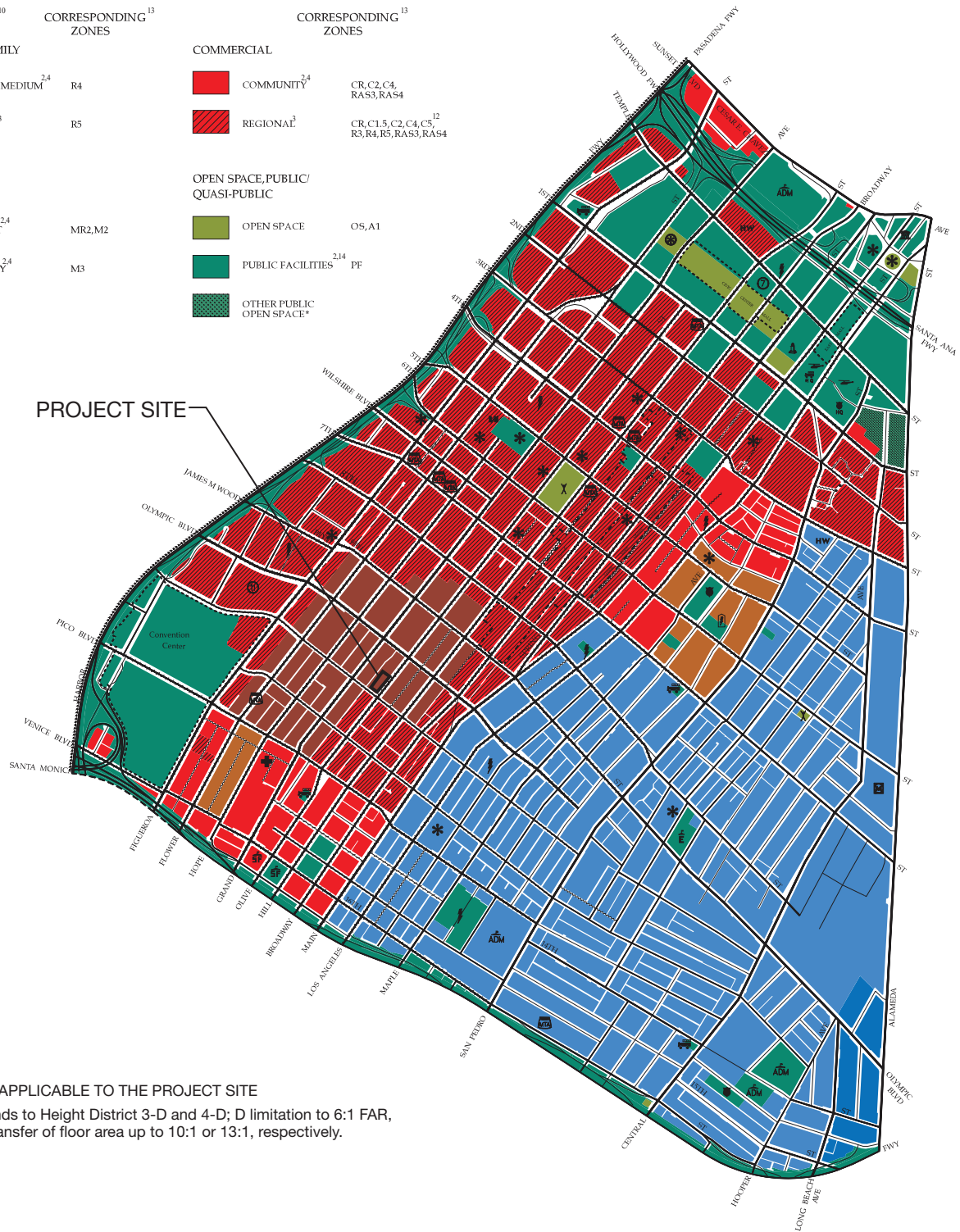
The Project Site is also located within the Community Plan's designated Los Angeles Convention Center/Arena Sphere of Influence, as shown in **Figure IV.I-3, *Los Angeles Convention Center/Arena Sphere of Influence***. The sphere of influence is an area where mixed-use residential and commercial development is encouraged to complement the development adjacent to the Convention Center with its larger focus on entertainment, retail/restaurant, and visitor/hotel development by providing nearby residents that can support these facilities and housing for workers at these locations.

Land Use and zoning designations in the Project vicinity are shown in **Figure IV.I-4, *Project Site and Surrounding Zoning***. The Project Site is designated as "High Density Residential." The Project Site is located amidst an area of similarly designated residential uses. The Community Plan states: "Expanding the downtown residential community is viewed as a major component of efforts to revitalize Downtown." "Ground-floor commercial uses are providing neighborhood-supporting retail, services and amenities for a growing residential community." The residential area is surrounded by areas with Regional Commercial designations; and Sites further to the east have light industrial designations.

⁸ City of Los Angeles, Department of City Planning, Central City Community Plan, page 1-4, <https://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>. Accessed April 3, 2018.

LAND USE

RESIDENTIAL ¹⁰	CORRESPONDING ¹³ ZONES	COMMERCIAL	CORRESPONDING ¹³ ZONES
MULTIPLE FAMILY			
 HIGH MEDIUM ^{2,4}	R4	 COMMUNITY ^{2,4}	CR, C2, C4, RAS3, RA54
 HIGH ³	R5	 REGIONAL ³	CR, C1, 5, C2, C4, C5 ¹² R3, R4, R5, RAS3, RA54
INDUSTRIAL		OPEN SPACE, PUBLIC/ QUASI-PUBLIC	
 LIGHT ^{2,4}	MR2, M2	 OPEN SPACE	OS, A1
 HEAVY ^{2,4}	M3	 PUBLIC FACILITIES	PF
		 OTHER PUBLIC OPEN SPACE*	



FOOTNOTE APPLICABLE TO THE PROJECT SITE

3. Corresponds to Height District 3-D and 4-D; D limitation to 6:1 FAR, except for transfer of floor area up to 10:1 or 13:1, respectively.

GPCR-H05.EP



SOURCE: City of Los Angeles, 2009

1045 Olive Project

Figure IV.I-1
Central City Community Plan Land Use Designations

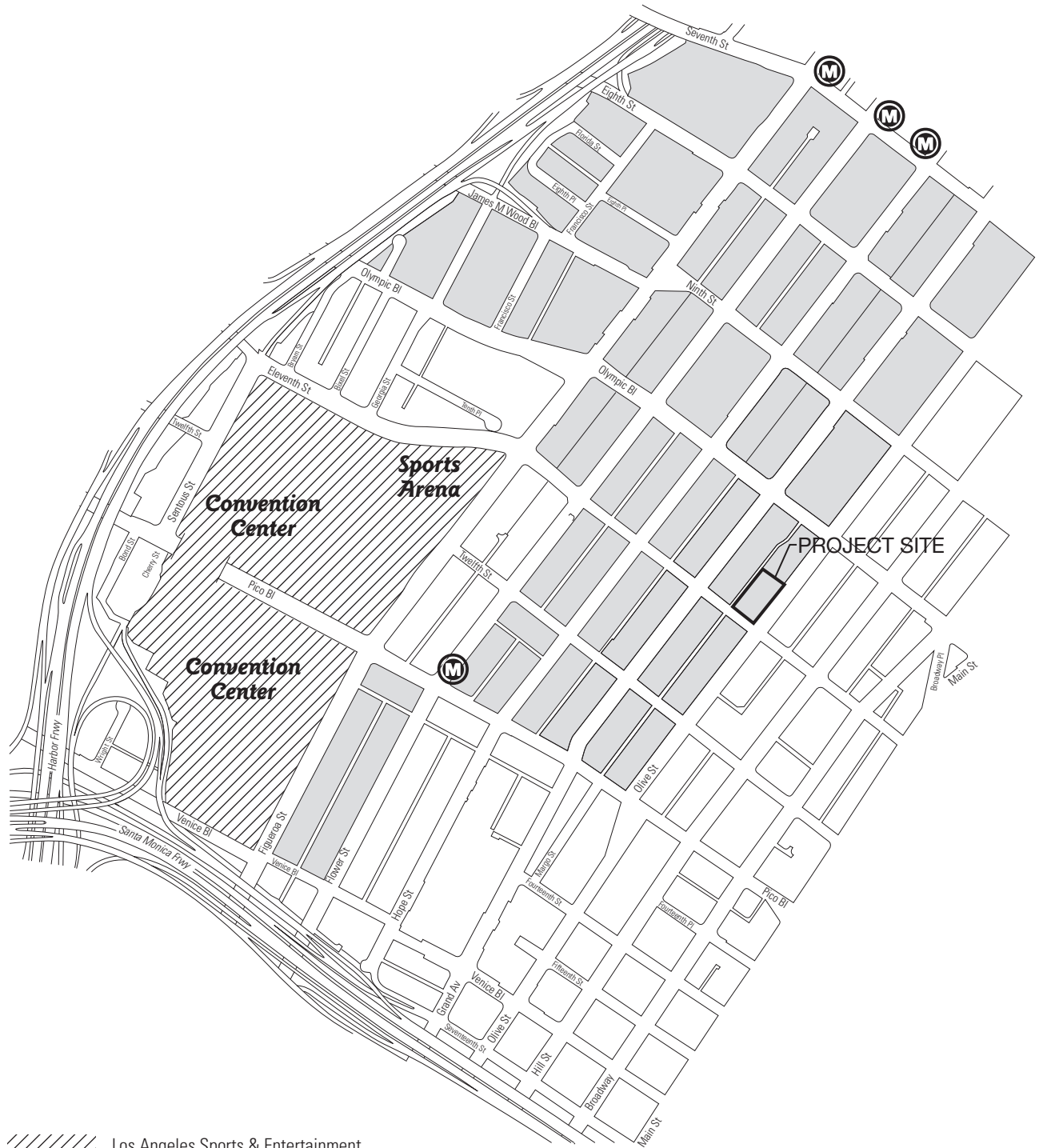



GPCRH05.EP

SOURCE: City of Los Angeles General Plan

1045 Olive Project

Figure IV.I-2
Central City Community Plan Neighborhoods and Districts



 Los Angeles Sports & Entertainment District Specific Plan
 Convention Center/Arena Sphere of Influence



CPCR-05.EP

SOURCE: City of Los Angeles General Plan

1045 Olive Project

Figure IV.I-3
Los Angeles Convention Center/Arena Sphere of Influence

The Project Site is also designated as lying within the Central City area that allows for higher floor area ratio (FAR) with implementation of transfer of floor area (TFAR) procedures pursuant to LAMC Sec.14.5.1.⁹ The TFAR allows the transfer of the unused allowable floor area of a lot from a donor site to a receiver site. In exchange for a TFAR, a developer must provide Public Benefits as defined by the TFAR ordinance. Project consistency with providing neighborhood-supporting retail, services and amenities for a growing residential community.¹⁰

A comparison of the Project characteristics with the applicable policies of the Community Plan, and development vision provided therein, is provided in Table IV.I-6, below.

The discussion of the adopted Community Plan below also provides information regarding DTLA 2040, the pending update to the Central City and Central City North Community Plans. The update is currently in process by the Department of City Planning, as part of the Department's New Community Plan Program.¹¹ Until such time as the DTLA 2040 is adopted, it is not controlling over the development at the Project Site. However, DTLA 2040 is discussed in the analysis below for informational purposes.

The proposed DTLA 2040 includes the updates to the Downtown Community Plans (Central City and Central City North), adoption of the "Downtown Zoning Code," which includes revisions of the LAMC, and the revisions to General Plan Elements, necessary to implement its objectives. DTLA 2040 proposes to describe a collective vision for Downtown's future and would include policies, plans, and programs that frame the City's long-term priorities; and support and sustain the ongoing revitalization of Downtown while thoughtfully accommodating projected future growth.¹² The Project Site is located within the DTLA 2040's designated "Transit Core."¹³

(h) *Redevelopment Plan for the City Center Redevelopment Project Area*

The Redevelopment Plan for the City Center Redevelopment Project Area (City Center Redevelopment Plan or Redevelopment Project Area) was adopted on May 15, 2002 with an end date of May 15, 2032.¹⁴ The 879-acre Redevelopment Project Area incorporates

⁹ City of Los Angeles, Central City Community Plan, Floor Ratio Map, <https://planning.lacity.org/complan/central/PDF/ccyplanmap.pdf>. Accessed March 23, 2018.

¹⁰ City of Los Angeles Department of City Planning, Central City Community Plan, page I-9.

¹¹ Downtown Los Angeles 2040. About This Project, <https://www.dtl2040.org/>. Accessed March 23, 2018.

¹² Downtown Los Angeles 2040. About This Project, <https://www.dtl2040.org/>. Accessed March 23, 2018.

¹³ Downtown Los Angeles 2040, Concept Map, <https://ladcp.maps.arcgis.com/apps/MapJournal/index.html?appid=2a05d2914ad94727a6f6c7ef2d3fc5ed>. Accessed March 23, 2018.

¹⁴ The Community Redevelopment Agency of the City of Los Angeles (CRA/LA), City Center Redevelopment Plan, http://www.crala.org/internet-site/Projects/City_Center/upload/citycenter.pdf. Accessed April 3, 2018.

the Historic Downtown, South Park, and City Markets subareas. As shown on Exhibit 6 of the City Center Redevelopment Plan, the Project Site is located in the South Park subarea.¹⁵

The City Center Redevelopment Plan was adopted pursuant to State laws and carried out under the auspices of the Community Redevelopment Agency (CRA) for the purpose of eliminating blight and deterioration that had been occurring in the Downtown area. In 2011, the State approved ABx1-26, which dissolved approximately 400 redevelopment agencies across the State. Pursuant to ABx1-26, in August 2011, the Los Angeles City Council adopted an ordinance authorizing CRA/LA, a Designated Local Authority (DLA) and successor to the CRA, to perform certain functions that were formerly under the auspices of the CRA. The land-use authorities granted in the Redevelopment Plans remained effective with administration by the DLA beginning on February 1, 2012. While the economic development and financial tools of the former CRA are no longer available, the existing Redevelopment Project areas and the City's Redevelopment Plan remain in effect at this time. In June 2012, the State passed additional legislation related to redevelopment (AB 1484), which allows a city to request that all land use related plans and functions of the former redevelopment agency be transferred to the jurisdiction that authorized the creation of the redevelopment agency. Pursuant to that legislation, the Los Angeles City Council has directed the City Attorney to prepare an ordinance that would transfer existing administrative and discretionary land use review of development projects in Redevelopment Plan areas to the Department of City Planning, and would allow for continued implementation of the redevelopment. That transfer of land use review authority has not occurred, as there has been no approved ordinance.

The purpose of the City Center Redevelopment Plan was to provide mechanisms (e.g., property acquisition and management) for rejuvenating the Downtown area to attain a number of economic, social and physical environmental benefits. The benefits pertaining to the physical environment were intended to implement development pursuant to the General Plan Framework and the Community Plan. As such, the City Center Redevelopment Plan contains numerous objectives and land use development guidelines that are intended create a densely clustered Downtown Center that contributes to a land use pattern which support reductions in vehicle miles traveled, reductions in associated noise and air emissions, and improved efficiency in energy consumption and infrastructure provision. An analysis of the Project's potential consistency and/or conflict with the provisions of the Center City Redevelopment Plan is included Subsection 3(d), Project Impacts, below.

(i) *City of Los Angeles Planning and Zoning Code*

LAMC, Chapter 1, Planning and Zoning Code, defines the range of zoning classifications throughout the City, provides the specific permitted uses applicable to each zoning

¹⁵ The Community Redevelopment Agency of the City of Los Angeles, CRA/LA-A Designated Local Authority, City Center Redevelopment Project Area, About the Project Area, http://www.crala.org/internet-site/Projects/City_Center/about.cfm. Accessed April 3, 2018.

designation, and applies development regulations to each zoning designation. As shown in Figure IV.I-4, above, the Project Site is zoned (Q)R5-4D-O and located in an area predominated by the same residential zoning classifications to the north, east, and west. The R5 zone provides for high-density residential uses. The O designation indicates that the Project Site is located within an Oil Drilling District (Los Angeles Downtown Oil Field). The “Q” Condition applicable to the Project Site, pursuant to Ordinance No. 164,307, allows commercial uses to be included along with the residential development, provided the floor area for the commercial uses does not exceed a 2:1 FAR. The applicable Height District No. 4 permits an FAR of 13:1. However, the “D” limitation, pursuant to Ordinance No. 164,307, restricts the floor area to a maximum of 6:1 FAR unless additional floor area is permitted through a TFAR. The Project qualifies for a 13:1 FAR pursuant to the City’s TFAR ordinance, Section 14.5 of the LAMC, and, as a Transit Area Mixed Use Project within a Transit Priority Area (TPA), is allowed to calculate FAR based on the area contained within the centerlines of S. Olive Street, W. 11th Street, and the abutting alley. A comparison of Project Characteristics with the applicable zoning policies and land use programs is provided in Subsection 3.d, Project Impacts, below.

b) Existing Conditions

(1) Project Site

The Project Site is located in Downtown Los Angeles and is bounded by S. Olive Street to the east and W. 11th Street to the south. The general vicinity and relationship of the Project Site to surrounding streets is illustrated in **Figure II-1, Regional and Project Vicinity Map**, and **Figure II-2, Aerial Photograph of the Project Site and Vicinity**, contained in Chapter II, *Project Description*, of this Draft EIR.

The Project Site is 41,603 square feet in size; and includes five existing commercial buildings (containing 35,651 square feet of area), 3,424 square feet of paved parking lot area and 3,506 square feet of right-of-way and alley easement area. Of this area, 4,431 square feet would be dedicated to the City for sidewalks and alleys, leaving a development site of 37,172 square feet of buildable area. As a Transit Area Mixed Use Project with the implementation TFAR provisions pursuant to LAMC Section 14.5.3, the buildable area of the Project Site for calculating the FAR extends to the centerline of S. Olive Street, W. 11th Street and a center-block alley adjacent to the Project Site to the west, inclusive of easements that would be provided in the alley and public right of way; resulting in a buildable area of approximately 57,829 square feet.

The five existing commercial buildings on the Project Site are each approximately one-story in height. At present, the buildings are partially vacant and otherwise contain limited retail and manufacturing uses, such as clothing production or printing.

(2) Surrounding Land Uses

The area surrounding the Project Site is served by a network of regional transportation facilities that provide access to the greater metropolitan area. It is located approximately

1,500 feet from the entrance to the Pico Boulevard Station that provides rail service to the Los Angeles County Metropolitan Transportation Authority (Metro) Blue, and Expo Lines; and approximately 2,700 feet from the 7th Street/Metro Center Station that provides rail service to the Blue, Expo, Red and Purple Lines.

The Project Site is located within the South Park neighborhood, which is a mixed-use community with a significant concentration of housing. As such, its development complements the mixed use, but more commercially/business focused emphasis of its adjacent neighborhoods: Convention Center/Arena, Finance Core and South Markets.

The existing uses within the Project block, located across from the Project Site and in the larger Project Vicinity are as follows.

(a) Within the Project Block

The Project block, which is bounded by W. 11th Street, S. Grand Avenue, W. Olympic Boulevard, and S. Olive Street, is shared with adjacent development. Development within the block is mostly occupied by newer residential development with multi-family residential over ground-floor retail or restaurant uses. The seven-story Oakwood Olympic & Olive apartment building is located directly to the north of the Project Site; and the Oakwood Olympic & Olive building is located in the northwest sector of the block with 201 units and a coffee shop with sidewalk tables continuing along the building's W. Olympic Boulevard frontage. Within the same block, directly northwest of the Project Site, is the seven-story, 182-unit 1000 Grand apartment building. This building incorporates retail uses along the W. Olympic Boulevard and S. Grand Avenue frontages.

(b) Adjacent Uses across from the Project Site

Land uses directly to the east of the Project Site on Olive Street include a mix of one- and two-story commercial buildings, interspersed with the more recently developed mid-height Faye Washington Youth Empowerment Center (a YWCA facility). South of the Project Site across 11th Street are two surface automobile parking lots, one located west of S. Olive Street and other located east of S. Olive Street, and caddy corner to the Project Site (west of the Alley, a seven-story building with residential lofts. These parking lots are now proposed for development and are included in the EIRs related projects list as Related Project No. 190, a 60-story, 713-unit residential, mixed-use development and Related Project No. 191, a 51-story, 537-unit residential, mixed use development.

(c) Other Surrounding Development

Development otherwise surrounding the Project Site is an eclectic mix of land uses. Development varies by type of use, age of buildings and height of buildings. A large portion of the development is multifamily residential with many of the newer residential buildings having mixed-use, with residential uses over pedestrian level commercial uses. There are also several office buildings included in the area as well as large number of older one and two story commercial buildings, surface parking lots and parking structures

intermixed. Buildings include a mix of low-rise, mid-rise and high-rise (falling between 32 and 41 stories) buildings.

Moving towards the west are the L.A. LIVE entertainment complex, the Los Angeles Convention Center, and Staples Center. While development adjacent to these uses remains mixed-use, the mix of development includes more retail stores, hotels, restaurants and entertainment venues, as compared to the development more adjacent to, and east of the Project Site. Moving towards the east the development transitions to lower density commercial, wholesale, and warehouse uses.

3. Project Impacts

a) Thresholds of Significance

In assessing impacts related to land use in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to land use and planning if it would:

- a) *Physically divide an established community; or***
- b) *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.***

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate land use and planning:

(a) Land Use Consistency

- Whether the proposal is inconsistent with the adopted land use/density designation in the Community Plan, redevelopment plan or specific plan for the site; and
- Whether the proposal is inconsistent with the General Plan or adopted environmental goals or policies contained in other applicable plans.

(b) Land Use Compatibility

- The extent of the area that would be impacted, the nature and degree of impacts, and the type of land uses within that area;
- The extent to which existing neighborhoods, communities, or land uses would be disrupted, divided or isolated, and the duration of the disruptions; and
- The number, degree, and type of secondary impacts to surrounding land uses that could result from implementation of the proposed project.

b) Methodology

The analysis of potential land use impacts considers the Project's potential conflicts with applicable plans, policies and ordinances that have been adopted for the purpose of mitigating an environmental impact. Projects that do not conflict with the provisions of a plan, policy or ordinance would also be consistent with those provisions. A consistency analysis requires compatibility with the general plan's objectives, policies, general land uses, and programs. The question is not whether there is a direct conflict between some mandatory provision of a general plan and some aspect of the Project, but whether the Project is compatible with, and does not frustrate, the general plan's goals and policies.

The analysis below identifies the applicable plans, identifies the key components of the plans that pertain to effects on the physical environment and then compares the Project's development characteristics to the development that would be anticipated in the applicable plans to determine whether the development characteristics of the Project are consistent with, and/or conflict with, provisions in the applicable plans.

c) Project Characteristics

The Project would include a maximum of 794 residential units and 12,504 square feet of neighborhood-serving commercial (restaurant/retail) uses located at the ground level. The development would include a 61-story tower atop a nine level podium structure (Podium) for a total of 70 floors, up to 810 feet in height. For a more detailed description of the Project refer to Chapter II, *Project Description*, of this Draft EIR.

No additional specific Project Design Features beyond those incorporated into the Project Description are proposed with regard to land use and planning.

d) Analysis of Project Impacts

Threshold a) Would the Project physically divide an established community? Less than Significant Impact.

As discussed in the *Initial Study* (Appendix A of this Draft EIR), the Project Site is located within the boundaries of the Community Plan Area, in a highly urbanized area of Downtown and the South Park community of the City and is improved with five commercial buildings and associated surface parking. The Project would represent redevelopment of an already developed site in conformance with the existing General Plan land use designation and zoning of the Site and would be similar to other large mixed-use development projects recently constructed in the area. The Project would not close or re-route existing streets; and would comprise an infill development within the existing grid pattern.

Therefore, the Initial Study analysis determined that the Project would not physically divide an established community, and no further analysis of this topic in an EIR is required.

Threshold b) *Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? Less than Significant Impact.*

The following addresses the Project's consistency and/or potential conflicts, with the applicable policies of the SCAG's 2016-2040 RTP/SCS, City of Los Angeles General Plan Framework, City of Los Angeles Mobility Plan 2035, General Plan Conservation Element, General Plan Housing Element, General Plan Health and Wellness Element, Central City Community Plan, City Center Redevelopment Plan, and the LAMC (Chapter 1 - Planning and Zoning).

(a) SCAG's 2016-2040 RTP/SCS

SCAG's 2016-2040 RTP/SCS incorporates a variety of goals, policies and strategies that are applicable to the Project. There are a number of themes that interlace the various components of this plan. As described in the 2016-2040 RTP/SCS:

"The first of these [themes is] 'Integrating strategies for land use and transportation.' This is SCAG's overarching strategy for achieving its goals of regional economic development, maximized mobility and accessibility, for all people and goods in our region, safe and reliable travel, a sustainable regional transportation system, a protected natural environment, health for our residents, and more."¹⁶ A key component of the Land Use Strategy is to focus new growth around transit in HQTAs.¹⁷

Many of the provisions in the 2016-2040 RTP/SCS provide guidance to transportation planning agencies, local jurisdictions, and suggest preferred development characteristics for individual projects. None of the provisions, particularly items pertaining to individual projects, necessarily address all provisions of the 2016-2040 RTP/SCS. However, to the extent that individual projects support the anticipated results of implementing the 2016-2040 RTP/SCS, those projects would be consistent with, and would not conflict with, the implementation of the 2016-2040 RTP/SCS. **Table IV.I-1, Comparison of Project Characteristics to Applicable Goals of the 2016–2040 Regional Transportation Plan**, below, provides a side by side comparison of the Project's characteristics with key goals of the plan. As shown in Table IV.I-1, the Project would be consistent with, and would not conflict with the 2016-2040 RTP/SCS.

¹⁶ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. Page 73, <http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed March 21, 2018.

¹⁷ Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. Page 76, <http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed March 21, 2018.

TABLE IV.I-1
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE GOALS OF THE 2016–2040
REGIONAL TRANSPORTATION PLAN

Selected Goals	Project Characteristics
Maximize mobility and accessibility for all people and goods in the region.	As noted above, SCAG's primary strategy for achieving its transportation goals and policies is integrating its transportation and land use strategies by focusing new growth around transit in High Quality Transit Areas (HQTAs). The Project would intensify development in an area served by the Metro Light Rail and numerous regional bus lines. Furthermore, the Project would provide a high density residential use in an area with pedestrian access to a range of commercial and entertainment services as well as high employment opportunities that would encourage pedestrian travel, as well as the use of other alternative modes of transportation.
Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	<p>The Project would implement features to reduce air quality impacts, and encourage active transportation including compliance with the Los Angeles Green Building Code and California Green Building Standards Code (CALGreen Code) (see Sections IV.B <i>Air Quality</i>, and IV.F <i>Greenhouse Gas Emissions</i>, of this Draft EIR). As indicated, in Section IV.B, <i>Air Quality</i>, impacts of the Project regarding health risk associated with air quality, would be less than significant. Project characteristics and design features that support reductions in air emissions and encouragement of alternative modes of transportation are discussed in detail within these Draft EIR sections. In particular, AQ-PDF-1 delineates the Project's Green Building Features, including United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold level (or better) to support the policy. Further, mitigation measure TRAF-MM-1 requires the implementation of a Transportation Management Program that would reduce reliance on the use of private automobiles.</p> <p>Also, the Project is located adjacent to the W. 11th Street bike lane and is within cycling and walking distance to a range of restaurants, retail uses, services, medical offices, Grand Hope Park, the Financial Center and destinations centers such as the L.A. LIVE Entertainment Complex, Staples Center, and the Los Angeles Convention Center. Walking and cycling would reduce air emissions and improve air quality relative to automobile travel.</p>
Actively encourage and create incentives for energy efficiency, where possible.	<p>As noted above, the Project would support a land use pattern that provides increased opportunity for the use of alternative transportation and provision for a high level of pedestrian accessibility between uses that would contribute to reductions in vehicle miles traveled. Reducing the number of miles traveled in private vehicles reduces the amount of fuel energy required for transportation, thus accommodating a similar movement of people with less consumption of energy, which results in benefits to energy efficiency.</p> <p>The Project would be designed to qualify as an Environmental Leadership Development Project (ELDP) as certified by the Governor's Office of Planning and Resources. In so doing, the Project would achieve LEED Gold certification, maximize transit friendly features, and be 'Net-Zero' in carbon/GHG emissions. The Project would also comply with the City of Los Angeles Green Building Code, which builds upon and sets higher standards than those incorporated in the 2016 CALGreen Code.</p> <p>Further energy efficiency and sustainability features incorporated into the Project include native plants and drip/subsurface irrigation systems, individual</p>

Selected Goals	Project Characteristics
	<p>metering or sub metering for water use, leak detection systems, rainwater harvesting and electric vehicle charging stalls.</p> <p>For further discussion of the Project's impacts regarding energy efficiency and consumption, refer to Section IV.D, <i>Energy</i>, of this Draft EIR. As indicated therein, the Project's impacts regarding energy consumption and efficiency would be less than significant.</p>
Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	<p>As discussed above, a key component of the Land Use Strategy is to focus new growth around transit in HQTAs. The Project would intensify development in an area served by the Metro Light Rail and numerous regional bus lines. Furthermore, the Project would provide a high density residential use in an area with pedestrian access to a range of commercial and entertainment services as well as high employment opportunities that would encourage pedestrian travel, as well as the use of other alternative modes of transportation.</p>
SOURCE: ESA, 2018.	

(b) *City of Los Angeles General Plan Framework*

The General Plan Framework provides the overall development framework for the City and serves as a basis for the preparation of other General Plan Elements as well as establishing the basic parameters for development. The General Plan Framework designates the arrangement of land uses and development densities, as well as design guidelines for development in the City. By conforming to these guidelines, new development will reduce potential impacts to the environment; will avoid greater impact levels and mitigate potential impacts that might otherwise occur with alternative land use arrangements. To the extent that individual development projects support those land use arrangements, they contribute to reductions in impacts such as, but not limited to reductions in the following: vehicle miles traveled, noise levels, air quality emissions, inefficient use of energy, inefficient provision of infrastructure systems, incompatibility between land uses, and encouragement for alternative modes of transportation.

Applicable goals, objectives and policies of the General Plan Framework with a comparison of the Project Characteristics to those provisions is provided in **Table IV.I- 2, Comparison of Project Characteristics to Applicable Goals, Objectives and Policies of the General Plan Framework**. As reflected in Table IV.I-2, the Project Characteristics are consistent with, and would not conflict with, the General Plan Framework.

TABLE IV.I-2
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE POLICIES OF THE GENERAL
PLAN FRAMEWORK ELEMENT

Goal, Policy or Objective	Project Characteristics
Land Use Chapter	
<p>Goal 3A: A physically balanced distribution of land uses that contributes towards and facilitates the City's long-term fiscal and economic viability, revitalization of economically depressed areas, conservation of existing residential neighborhoods, equitable distribution of public resources, conservation of natural resources, provision of adequate infrastructure and public services, reduction of traffic congestion and improvement of air quality, enhancement of recreation and open space opportunities, assurance of environmental justice and a healthful living environment, and achievement of the vision for a more livable city.</p>	<p>This Goal incorporates a number of following Objectives and Policies that provide guidance regarding the distribution of development in the City with the establishment of the Downtown area as a "Downtown Center." Collectively, this goal with its objectives and policies, once implemented would place mixed-uses within walking distance of one another, would create population density at key locations to support regional public transportation systems, would provide for efficiency in the provision of infrastructure and would avoid the traffic, noise, congestion and adverse visual effects that would otherwise occur by placing large amounts of the City's new growth into existing low density neighborhoods.</p> <p>The Project would upgrade the use of the Project Site from its current mix of dated, partially vacant and limited-value uses to new uses that would support the revitalization of the area in a new development. The Project would not cause the removal of any existing residential units or encroach into established residential neighborhoods. It would be located in a TPA and thus provide the opportunity for usage of alternative transportation and reductions in congestion. The Project would provide a public Plaza and increase street trees, which would generate a more healthful environment and improve the livability of the neighborhood.</p>
<p>Objective 3.1: Accommodate a diversity of uses that support the needs of the City's existing and future residents, businesses, and visitors.</p> <p>Policy 3.1.4: Accommodate new development in accordance with land use and density provision of the General Plan Framework Long-Range Land Use Diagram (Figures 3-1 to 3-4) and Table 3-1.</p>	<p>This objective and its related policies establish distinct categories of development areas, within the City, including the designation of the Downtown District as a mixed use center of regional activity (Figure 3-1). To the extent that development is consistent with the designations, densities and development characteristics identified for the various areas of the City, new development and the necessary accommodation of growth within the City will be provided in a manner that reduces vehicle miles traveled while supporting alternative modes of transportation (including pedestrian activity between uses), that reduces adverse impacts to the aesthetic character of the City, that reduces impacts between incompatible uses (e.g., nuisance) and that avoids adverse impacts to the character of the City's low density residential areas.</p> <p>The Project would support the fulfillment of the Downtown area as Downtown Center. The Project would accommodate a diversity of uses by providing ground level space for restaurants, retail uses or other commercial uses. It would also provide 794 new residential units that would provide new housing for employees of the broad array of surrounding commercial uses, as well as added residents to the neighborhood that would patronize nearby businesses and services.</p>
<p>Objective 3.2: To provide for the spatial distribution of development that promotes an improved quality of life by</p>	<p>The Project would contribute to the concentration of mixed-use development within an area of the Central City well-served by transit. The Project Site is also adjacent to a portion of 11th Street that will be a part of the MyFigueroa Streetscape project, the purpose of which is</p>

Goal, Policy or Objective	Project Characteristics
facilitating a reduction of vehicle trips, vehicle miles traveled, and air pollution.	<p>to transform the S. Figueroa and W. 11th Streets into multimodal streets with improved transit, streetscape and landscaping features to better serve the needs of pedestrians, bicyclists, and transit riders. The Project Site is located approximately 1,500 feet from the entrance to the Pico Boulevard Station that provides rail service to the Metro Blue, and Expo Lines; and approximately 2,700 feet from the 7th Street/Metro Center Station that provides rail service to the Blue, Expo, Red and Purple Lines. It is also lies adjacent to multiple bus and shuttle lines in the immediate vicinity that would facilitate a reduction in vehicle trips and vehicle miles travelled by reducing the demand for the utilization of private automobiles.</p> <p>For further discussion, refer to Sections IV.B, <i>Air Quality</i>, and IV.M, <i>Transportation and Traffic</i>, of this Draft EIR. As indicated therein, impacts of the Project on air quality and transportation/traffic would be less than significant.</p>
<p>Objective 3.15: Focus mixed commercial/residential uses, neighborhood-oriented retail, employment opportunities, and civic and quasi-public uses around urban transit stations, while protecting and preserving surrounding low-density neighborhoods from the encroachment of incompatible land uses.</p>	<p>The Project would support the reductions in adverse environmental impacts that result from clustering of development by providing a new mixed-use development that includes high-density residential and retail/commercial uses in an area served by the Metro light rail line in Flower Street and adjacent bus lines (and future L.A. Streetcar) on a 0.96-acre infill site on existing lots entirely within the Downtown Core.</p>
<p>Objective 3.16: Accommodate land uses, locate and design buildings, and implement streetscape amenities that enhance pedestrian activity.</p>	<p>This Objective, and the related Policies 3.16.1 to 3.16.3, below, are intended to encourage walking as a viable form of transportation, thereby reducing impacts on transportation facilities. The Project would support this Objective by providing ground-level commercial/retail along W. 11th Street, a public Plaza, and new canopy trees along W. 11th Street and S. Olive Street. With the introduction of a landscaped and active commercial street front, the Project would enhance pedestrian activity in the vicinity.</p>
<p>Policy 3.16.1: Enhance pedestrian activity in areas designated as a Pedestrian-Oriented District by the design and siting of buildings in accordance with the policies contained in Chapter 5: Urban Form and Neighborhood Design.</p>	<p>Project consistency with Policy 3.16-1 is evaluated in Section IV.A, <i>Aesthetics</i>, of this Draft EIR. Per that evaluation, the Project would be consistent with the policies of Chapter 5: Urban Form and Neighborhood Design through architectural design elements including street front entrances, clear windows and glass doors, street-accessible commercial/retail uses and residential lobby, landscaped Plaza, pedestrian seating, public art, deep tower setbacks relative to W. 11th Street and existing and future high-rise buildings.</p>
<p>Policy 3.16.2: Locate parking in pedestrian districts to the rear, above, or below the street-fronting uses.</p>	<p>The Project Design supports the pedestrian oriented Downtown District by avoiding conflicts between parking and pedestrian activities. All parking would be located within the 8-level Podium and six subterranean parking levels. The Project would promote pedestrian activity through the use of the ground floor commercial uses, a public Plaza, outdoor seating, public art, and an activated street frontage that includes street trees and landscaping.</p>
<p>Policy 3.16.3: Require that the ground floor of parking structures located along primary street</p>	

Goal, Policy or Objective	Project Characteristics
frontages in pedestrian-oriented districts be designed to promote pedestrian activity and, where appropriate, incorporate retail uses.	
Open Space and Conservation Chapter	
<p>Objective 6.4 Ensure that the City's open spaces contribute positively to the stability and identity of the communities and neighborhoods in which they are located or through which they pass.</p> <p>Policy 6.4.8.a: Encourage the development of public plazas, forested streets, farmers markets, residential commons, rooftop spaces and other places that function like open space in urbanized areas of the City with deficiencies of natural open space, especially in targeted growth areas.)</p>	<p>This Objective and the related Policy establish a strategy whereby the overall availability of open space within the City can be enhanced in part through contributions of private development for visual relief and places for people to sit/spend time within the heavily developed area. The Project would provide a ground level Plaza available to the public with seating, public art and landscaping. The Project would also include common open space and recreational amenities for Project residents including residential terraces (37,927 square feet) along with new canopy street trees and other landscaping, and prominent building cutouts, and would add to the visual quality and visual relief in the Project area.</p>
Economic Development	
<p>Goal 7A: A vibrant economically revitalized City.</p> <p>Objective 7.2: Establish a balance of land uses that provides for commercial and industrial development which meets the needs of local residents, sustains economic growth, and assures maximum feasible environmental quality.</p>	<p>Chapter 7, <i>Economic Development</i>, complements the Land Use Chapter of the General Plan Framework in identifying a range of land uses to be developed in the City and provides general principles for locating those land uses. As discussed above, Figure 3-1 of the Land Use Chapter identifies the Project Site as lying within the Downtown Center. In assigning a range of uses to the Downtown Center consistent with the provisions of the Economic Development Chapter, the Community Plan, as discussed further below, has identified the South Park neighborhood a mixed-use community with a significant concentration of housing, inclusive of complementary uses such as residentially serving retail activities. As such, the South Park District complements the mixed use, but more commercially/business focused emphasis of the adjacent Districts: Convention Center/Arena, Finance Core and South Markets.</p> <p>Figure 7-1 of the Economic Development Chapter shows the Project Site as being located within a Redevelopment Project Area. As such, the appropriate uses for the Project area were taken into account in the preparation of the City Center Redevelopment Plan as well as the Community Plan. The City Center Redevelopment Plan also identifies the South Park area as a mixed-use live/work community with a major share of the land use devoted to housing.</p> <p>Consistent with the principles established in the Economic Chapter of the General Plan Framework, as fine-tuned in the preparation of the Community Plan and Redevelopment Plan, the Project would include an architecturally unique 70-story residential tower, 12,504 square</p>

Goal, Policy or Objective	Project Characteristics
Goal 7D: A City able to attract and maintain new land uses and businesses.	feet of commercial (restaurant/retail) uses, 794 new residential units that would contribute housing and jobs to the economic revitalization of the Downtown Center. The Project would complement the mixed use, but more commercially/business focused emphasis of the nearby adjacent Districts including the Convention Center/Arena, Finance Core and South Market Districts.
Objective 7.6: Maintain a viable retail base in the City to address changing resident and business shopping needs.	The development pattern encouraged in the Economic Development Chapter of the General Plan Framework is one that contributes to reductions in environmental impacts that are associated with the provision of new development. The Project would contribute to the commercial development in the Downtown area by increasing the employment and residential population in an area of the City intended for energy efficient high-density development. The location of the Project within a TPA and the incorporation of sustainable building features would help to maintain maximum, feasible environmental quality, while contributing to the City's balance of land uses.
Goal 7G: A range of housing opportunities in the City.	The Project would provide 12,504 square feet of ground-level commercial/retail uses that would incrementally address the growing resident and business needs for these uses in Downtown, as well as the needs of the future Project residents. The retail space would contribute to the pedestrian friendly ground level retail milieu that provides a coherent set of support businesses for residential development within the area.
Objective 7.9: Ensure that the available range of housing opportunities is sufficient, in terms of location, concentration, type, size, price/rent range, access to local services and access to transportation, to accommodate further population growth and to enable a reasonable portion of the City's work force to both live and work in the City.	The Project would locate 794 residential units, with a mix of unit sizes, including studio and one-bedroom units that would meet the needs of diverse populations. The Project Site has access to employment opportunities, services, and restaurants/retail uses within walking distance of the Project Site, as well as proximity to transit for access to the City at large. The location of high-density residential uses within a high-jobs area would support the objective in which the population can live and work in the City.
Transportation	
Objective 8.3: Support development in districts, centers and mixed-use boulevards targeted for growth.	Development of the Project would support the intent of the Downtown Center designation by providing high-density infill housing and commercial uses in the Downtown area.
Policy 8.3.13: Enhance pedestrian circulation in neighborhood districts, community centers, and appropriate locations in regional	The Project would include a 2,728 square feet of public plaza at the corner of W. 11 th Street and S. Olive Street, along with 12,504 square feet of commercial (restaurant/retail) uses along W. 11 th Street and S. Olive Street. The Project would provide streetscape amenities, street trees, and a wider sidewalk along 11 th Street that would enhance pedestrian circulation. Vehicle access to the Project Site

Goal, Policy or Objective	Project Characteristics
centers and mixed-use boulevards.	would be distributed to three driveways, two of which are located off of the alley behind the Project Site, thus requiring only one new curb-cut on Olive Street. As indicated in Section IV.M, <i>Transportation and Traffic</i> , of this Draft EIR, impacts regarding accessibility and accommodation of pedestrian movements would be less than significant.

SOURCE: ESA, 2018.

(c) *Mobility Plan 2035*

While Mobility Plan 2035 focuses on the City's transportation network, it complements other components of the General Plan that pertain to the arrangement of land uses to reduce vehicle miles traveled and policies to support the provision and use of alternative transportation modalities. The Provisions of Mobility Plan 2035 as pertaining to the transportation system are discussed further in Section IV.M, *Transportation and Traffic*, of this Draft EIR. The components that address the arrangement of land uses are discussed below. The Project Characteristics are compared to the applicable policies of the Mobility Plan 2035 in **Table IV.I-3, Comparison of Project Characteristic with Applicable Policies of the Mobility Plan 2035**. For the reasons discussed in Table IV.I-3, the Project would be consistent with, and would not conflict with, Mobility Plan 2035.

**TABLE IV.I-3
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE POLICIES OF THE MOBILITY
PLAN 2035**

Policy	Project Characteristics
1.1 Design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user.	The first policy of Chapter 1 of the Mobility Element is to ensure the City streets will be safe for all by planning for the most vulnerable users. Under the Mobility Plan, roadways should operate in a manner that considers the presence of people who walk and bike, children, the elderly, and the mobility-impaired. The Mobility Element's model streets program is intended to implement this objective and policy. Consistent with this policy, the Project would provide only one vehicle entrance on the public street to the proposed subterranean and Podium parking structure serving the Project Site. Other vehicle entrances and deliveries would occur along the public alley, which would not require a new curb cut for access. In addition, W. 11 th Street contains a dedicated westbound bike lane. By maintaining minimal driveway access, the Project would reduce conflicts between automobiles accessing or leaving the Project Site and buses, commuters, cyclists, and pedestrians. The Project would also widen the W. 11 th Street sidewalk to 15 feet from 12 feet and maintain the S. Olive Street sidewalk at 17 feet. Canopy street trees would be planted along both sidewalks. The wider sidewalk on W. 11 th Street would improve pedestrian comfort and safety. In addition, the predominant street light pattern would be continued and supplemented as required by the Bureau of Street Lighting. The

Policy	Project Characteristics
1.6 Design detour facilities to provide safe passage for all modes of travel during time of construction.	<p>Project's wider sidewalk, limited curb cuts and improved pedestrian lighting would support the Mobility Plan's objective to prioritize safety of the most vulnerable roadway users.</p> <p>Consistent. As described in Section IV.M <i>Transportation and Traffic</i>, TRAF-PDF-1 and TRAF-PDF-2 require a Construction Traffic Management Plan, a Worksite Traffic Control Plan and a Pedestrian Safety Plan that would ensure that adequate and safe access remains available for traffic and pedestrians in the Project vicinity. These plans would identify traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor, and minimize the potential conflicts between construction activities, street traffic, bicyclists and pedestrians. Pedestrian access along S. Olive Street and W. 11th Street adjacent to the Project Site would remain open during construction. Pedestrian access to the sidewalks would be maintained by providing a covered protected walkway for pedestrians on both S. Olive Street and W. 11th Street adjacent to the Project Site.</p>
2.3 Recognize walking as a component of every trip, to ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.	<p>Mixed use development and the provision of pedestrian facilities between uses and transit facilities supports reductions in vehicle miles traveled. The Project would provide a large residential population in proximity to commercial, employment and entertainment activities. Also, the Project would provide sidewalk improvements, including widening the W. 11th Street sidewalk to 15 feet and providing 17-foot sidewalk along S. Olive Street, with canopy street trees. A cut-out Plaza would be provided at the corner of W. 11th Street and S. Olive Street, with public art, landscaping, and seating, as well as improved pedestrian lighting, clear windows along the street fronts to enhance pedestrian access and experience, and create a comfortable walking environment.</p>
3.1 Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicle modes – including goods movement - as integral components of the City's transportation system.	<p>The Project is located in a Transit Priority Area served by two nearby Metro Light Rail stations, Rapid Bus, and local bus lines as well as the adjacent, dedicated W. 11th Street bike lane. The Project would provide bicycle parking and access, immediate access to the bike lane, as well as convenient pedestrian access to surrounding transit opportunities, thus, supporting all modes of travel. As described in Section IV.M, <i>Transportation and Traffic</i>, of this Draft EIR mitigation measure, the Project includes numerous features that would contribute to the City's effort in meeting this policy. Further, TRAF-MM-1 requires implementation of a TDM program that would encourage use of alternative transportation modes for residents as well as employees.</p>
3.2 Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.	<p>The Project's curbs and sidewalks, Plaza, residential lobby entrances, ground floor commercial uses, elevators, open space terraces and recreational facilities would be designed to comply with the American with Disabilities Act and any additional City or state requirements.</p>
3.3 Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to	<p>This policy complements other land use policies that support increased residential development in proximity to employment opportunities and public transit. The Project would provide high-density residential uses within a dense urban center that is within walking distance of transit and within walking and cycling distance</p>

Policy	Project Characteristics
jobs, destinations, and other neighborhood services.	from a high number of employment opportunities (e.g., the Financial District and the concentration of medical offices in South Park), entertainment (e.g., L. A. Live Entertainment Center, Staples Center, and the Los Angeles Convention Center), and neighborhood services.
3.8 Provide bicycle parking with convenient, secure, and well-maintained bicycle parking facilities.	The Project would provide bicycle parking spaces for on-site residents, as well as bicycle parking for commercial uses per code requirements, per the requirements of Ordinance No. 185,480. Long-term bicycle parking would be secure within the Podium or subterranean parking structure. In addition, the Project would provide short-term parking on the ground/street level.
4.8 Encourage the greater utilization of Transportation Demand Management (TDM) strategies to reduce dependence on single-occupancy vehicles.	The City's TDM Program and Trip Reduction Measures (LAMC Section 12.26-J) applies to work trips and the construction of new non-residential floor area in excess of 25,000 square feet. As such, the City's TDM requirements would not be applicable to the Project. as described in Section IV.M, <i>Transportation and Traffic</i> , of this Draft EIR mitigation measure TRAF-MM-1 requires implementation of a TDM program that would encourage use of alternative transportation modes for residents as well as employees.
5.2 Support ways to reduce vehicle miles traveled (VMT) per capita.	The Project would provide high density residential uses and commercial uses within a TPA. The proximity of the Project Site to transit and bicycle routes, as well as employment opportunities (Financial District and South Park medical offices), entertainment (L.A. Live, Staples Center, and Los Angeles Convention Center), shopping, goods and services, which would be within walking distance and/or cycling distance would encourage pedestrian and cycling and the use of transit. With the use of alternative travel modes, the Project would support the reduction of vehicle miles traveled per capita associated with the automobile. As described in Section IV.M, <i>Transportation and Traffic</i> , of this Draft EIR mitigation measure TRAF-MM-1 requires implementation of a TDM program that would encourage use of alternative transportation modes for residents as well as employees.
5.4 Continue to encourage the adoption of low and zero emission fuel sources, new mobility technologies, and supporting infrastructure.	As the Project would meet ELDP standards, the Project would include off-sets to its GHG emissions that would result in a net-zero contribution to GHG emissions. For further discussion, refer to Section IV.F, <i>Greenhouse Gas Emissions</i> , and Section IV.D, <i>Energy</i> , of this Draft EIR. Among other features, the Project would support the use of electric vehicles by Project residents through the provision of on-site provisions for electric vehicle charging.

SOURCE: ESA, 2018.

(d) General Plan Conservation Element

As described in the regulatory discussion above, the General Plan Conservation Element has the purpose of identifying, preserving, protecting, and managing the City's broad range of natural resources. The focus of this General Plan Element is on the Citywide efforts to protect its natural resources, and to manage those resources. As such, its

policies and objectives pertain to resources where they occur rather than to specific geographic areas. To the extent that this Element refers to the ways in which individual development projects can support the broader Citywide efforts, it cross-references to CEQA procedures and regulatory measures that are controlling of individual development Projects. Components of this Element that most directly pertain to individual development projects are addressed other sections of this Draft EIR that pertain to specific environmental topics covered in the General Plan Conservation Element. Refer to following Sections of this Draft EIR: IV.A, *Aesthetics*; IV.C, *Cultural Resources*, IV.E, *Geology and Soils*; IV.G, *Hazards and Hazardous Materials*, IV.H, *Hydrology and Water Quality*; and IV.L.5, *Parks and Recreation*. As indicated in each of the Draft EIR sections, the Project would be consistent with, and would not conflict with the provisions for these environmental topics. Impacts of the Project regarding the respective topics addressed would be less than significant.

(e) *General Plan Housing Element*

The Project would include 794 residential units and would therefore help to address the City's need for new housing. Project consistency with the provisions of the General Plan Element that address the provision of housing stock are addressed in Section IV.K, *Population and Housing*, of this Draft EIR. As indicated therein, impact would be less than significant. Policies and Objectives that pertain to housing location and sustainability are compared to the Project in **Table IV.I-4, Comparison of the Project Characteristics to the Applicable Goals, Objectives, and Policies of the Housing Element**. As shown therein, the Project would be consistent with, and not conflict with the Housing Element.

TABLE IV.I-4
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE OBJECTIVES, AND POLICIES OF THE HOUSING ELEMENT

Applicable Policy/Objective	Project Characteristics
Goal 1: An adequate supply of ownership and rental housing that is safe, healthy and affordable to people of all income levels, races, ages, and suitable for their various needs.	The Housing Element identifies a need for 82,002 new housing units Citywide, of which 35,412 units would be for above-moderate-income households; and it establishes quantifiable objectives it expects to see met for the provision of 59,559 units, of which 46,500 units would be for above moderate income households. These objectives are minimum targets to be met and are not intended to serve as development caps. The Project's 794 proposed residential units, with a range of units, would contribute to meeting housing needs in the City. Further, the Project would provide added housing by providing residential development without displacing existing housing that is currently accommodating populations with other demographic characteristics; i.e., avoid adverse effects regarding the loss of housing stock.

Applicable Policy/Objective	Project Characteristics
<p>Objective 1.1: Produce an adequate supply of rental and ownership housing in order to meet current and projected needs.</p> <p>Policy 1.1.4: Expand opportunities for residential development, particularly in designated Centers, Transit Oriented Districts and along Mixed-Use Boulevards.</p>	<p>The Project would provide 794 new residential units that would contribute to the City's overall housing supply and help to meet the City's current and projected housing needs. The Project is also located within a TPA and the Downtown Center and would be consistent with policies to expand residential development within these designated areas.</p>
<p>Objective 1.2: Facilitate new construction and preservation of a range of different housing types that address the particular needs of the city's households.</p>	<p>The Project would facilitate new construction of multi-family units that would contribute to a range of housing types and would help address the demand for housing in the Community Plan Area.</p>
<p>Objective 1.3: Expand opportunities for residential development, particularly in designated Centers, Transit Oriented Districts and along Mixed-Use Boulevards.</p> <p>Policy 1.3.5: Provide sufficient land use and density to accommodate an adequate supply of housing units by type and cost within the City to meet projections of housing needs, according to the policies and objectives of the City's Framework Element of the General Plan.</p>	<p>The Project Site, which is located within the General Plan Framework Element's designated Downtown Center, as well as a Transit Oriented District, would contribute to the concentration of mixed-use development in an area well served by transit. Development that maximizes the allowable density would support the policy for sufficient land use and density to accommodate adequate supply of housing.</p>
<p>Goal 2: Safe, Livable, and Sustainable Neighborhoods</p> <p>Objective 2.1: Promote safety and health within neighborhoods.</p> <p>Policy 2.1.2: Establish development standards and other measures that promote and implement positive health outcomes.</p>	<p>The Project would provide high-density residential and commercial uses within walking distance of transit and within walking and/or cycling distance of high employment neighborhoods and regional cultural, dining and entertainment uses. This pedestrian activity would activate the neighborhood during evenings and weekends and, thus, improve safety. The Project would include design features that support Site safety, would include a large number of security personnel and would provide recreation and landscaped open space for the comfort and health of Project residents.</p>

Applicable Policy/Objective	Project Characteristics
<p>Objective 2.2: Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.</p> <p>Policy 2.2.1: Provide incentives to encourage integration of housing with other compatible land uses.</p> <p>Policy 2.2.2: Provide incentives and flexibility to generate new multi-family housing near transit and centers, in accordance with the General Plan Framework element.</p>	<p>The Project would provide high-density housing and commercial uses in proximity to jobs, services, entertainment, and transit. The Project's 794 residential units would be integrated into a surrounding community with a variety of dense urban uses by providing street level commercial uses, landscaping, sidewalk improvements, and other features that create linkages and cohesion among urban uses. The Project would also be located near two Metro Light Rail stations, as well as bus lines and the proposed Los Angeles Streetcar Project. The Project Site is located within the Downtown Center, as designated by the General Plan Framework Element. The Downtown Center is a location marked by major cultural and entertainment facilities, hotels, professional offices, corporate headquarters, financial institutions, high-rise residential towers, regional transportation facilities and the Convention Center. The Downtown Center is generally characterized by FARs of up to 13:1 within a wide variety of high rise buildings (General Plan Framework Element, Chapter 3).</p>
<p>Objective 2.3: Promote sustainable buildings, which minimize adverse effects on the environment and minimize the use of non-renewable resources.</p>	<p>The Project would be designed and operated to incorporate sustainability features that would reduce demand on water and energy resources. The Project would comply with applicable requirements of the Los Angeles Green Building Code and the 2016 CALGreen Code (Title 24). The building is expected to achieve the equivalent of USGBC's LEED Gold Certification level for new buildings. Specific design features would be incorporated into the Project to enhance energy efficiency and sustainability. Wraparound cantilevered balconies on every residential level have been designed to provide shade and minimize solar gain throughout the building. Further considerations regarding energy efficiency and sustainability include native plants and drip/subsurface irrigation systems, individual metering or sub metering for water use, leak detection systems, rainwater harvesting and provisions for electric vehicle charging. For further discussion, refer to Section IV.D <i>Energy</i>, of this Draft EIR, which addresses Appendix F, energy conservation considerations, in the State CEQA Guidelines. As shown therein the Project impacts regarding energy conservation would be less than significant.</p>

Applicable Policy/Objective	Project Characteristics
<p>Objective 2.4: Promote livable neighborhoods with a mix of housing types, quality design and a scale and character that respects unique residential neighborhoods in the City.</p> <p>Policy 2.4.1: Promote preservation of neighborhood character in balance with facilitating new development.</p> <p>Policy 2.4.2: Develop and implement design standards that promote quality residential development.</p> <p>Policy 2.4.3: Develop and implement sustainable design standards in public and private open space and street rights-of-way. Increase access to open space, parks and green spaces.</p>	<p>The Project would promote the livability of the Central City neighborhood with quality design consistent with the character of Downtown. The Project would promote sustainable design standards through the use of open space terraces, landscaping, street trees, and benches for sitting. The Project Site's public sidewalks on W. 11th Street would be widened to 15 feet and the 17-foot sidewalk width on S. Olive Street would be retained. Both sidewalks would be upgraded with new street trees and other landscaping. The Project would also incorporate a landscaped street-level Plaza with public art that would contribute to the area's open space resources.</p>
SOURCE: ESA, 2018.	

(f) *General Plan Health and Wellness Element (Plan for a Healthy Los Angeles)*

The General Plan Health and Wellness Element addresses a large number of health related issues that are linked to characteristics of the physical environment. The following policies guide development of the physical environment in a manner that supports public health. Changes to the physical environment that are not supportive of these policies would be considered adverse environmental effects. Policies that pertain to the location of development and design of buildings are compared to the Project characteristics in **Table IV.I-5, Comparison of Project Characteristics to Applicable Policies of the Health and Wellness Element**. As shown in Table IV.I-5, the Project would be consistent with, and not conflict with, these policies of the Health and Wellness Element.

TABLE IV.I-5
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE POLICIES OF THE HEALTH AND WELLNESS ELEMENT

Plan Policies	Project Characteristics
<p>Policy 2.2 Healthy Building Design and Construction: Promote a healthy built environment by encouraging</p>	<p>One means of meeting this policy is by individual projects contributing their part, through the provision of development characteristics that are consistent with this policy. The Project includes characteristics that would support the policy. The Project would be designed to qualify as</p>

Plan Policies**Project Characteristics**

the design and rehabilitation of buildings and sites for health living and working conditions, including promoting enhanced pedestrian-oriented circulation, lighting, attractive and open stairs, healthy building materials and universally accessibility using existing tools, practices, and programs.

an ELDP Project as certified from the Governor's Office of Planning and Resources. In so doing, the Project would achieve LEED Gold certification, maximize transit friendly features, and be 'Net-Zero' in carbon/GHG emissions. The Project would also comply with the City of Los Angeles Green Building Code, which builds upon and sets higher standards than those incorporated in the 2016 CALGreen Code.

The Project would provide 2,728 square feet of open space in the street-level Plaza available to the public, 37,927 square feet of common open space terraces for all Project residents, 23,025 square feet of common interior recreational uses for all Project residents. It would also provide 39,700 square feet of balconies for individual residential units. In addition, the Project would provide more than 500 new plantings to the Project Site.

Specific design features would be incorporated into the Project to enhance energy efficiency and sustainability. Wraparound cantilevered balconies on every residential level have been designed to provide shade and minimize solar gain throughout the building. Further considerations regarding energy efficiency and sustainability include native plants and drip/subsurface irrigation systems, individual metering or sub metering for water use, leak detection systems, rainwater harvesting and provisions for electric vehicle charging.

Policy 5.1 Air Pollution and Respiratory Health: Reduce air pollution from stationary and mobile sources; protect human health and welfare and promote improved respiratory health.

The Project would support City efforts by including a number of design characteristics that contribute to reductions in air quality emissions and protection of human health; some directly and some through reductions in consumption of energy.

The Project would include characteristics and design features that support reductions in air emissions and encouragement of alternative modes of transportation, as discussed more fully in Sections IV.2, *Air Quality*, and IV.F, *Greenhouse Gas Emissions*, of this Draft EIR. As indicated in these sections impacts regarding air quality and greenhouse gas emissions are less than significant. In particular, AQ-PDF-1 delineates the Project's Green Building Features, including LEED Gold level (or better) to support the policy. Further, mitigation measure TRAF-MM-1 requires the implementation of a Transportation Management Program that would reduce reliance on the use of private automobiles.

Some of the Project's key design features that contribute to energy efficiency for the purpose of air pollution reduction include wraparound cantilevered balconies on every residential level that have been designed to provide shade and minimize solar gain throughout the building, thus reducing air polluting energy generation for temperature control. Further considerations regarding energy efficiency and sustainability that reduce air pollution associated with energy generation and transport of water resources include native plants and drip/subsurface irrigation systems, individual metering or sub metering for water use, leak detection systems, rainwater harvesting and provisions for electric vehicle charging.

Policy 5.7 Land Use Planning for Public Health and GHG Emission Reduction: Promote

As described elsewhere in this section, the Project is consistent with the City's Land Use Plans (in particular the General Plan Framework and the Central City Community Plan), which support a population

Plan Policies	Project Characteristics
land use policies that reduce per capita greenhouse gas emissions, result in improved air quality and decreased air pollution, especially for children, seniors and others susceptible to respiratory diseases.	distribution pattern that increases population density in the Downtown Center and within a Transit Priority Area, thus supporting the use of alternative transportation that could help reduce greenhouse gas emissions from private automobile travel. As described for the previous policies in this table, the Project includes such features as LEED Gold certification, 'Net-Zero' in carbon/GHG emissions, and exceedance of CALGreen standards.
SOURCE: ESA, 2018.	

(g) *Central City Community Plan*

(i) *Currently Adopted Central City Community Plan*

The Central City Community Plan implements the General Plan Framework at the local level and establishes the role of the Central City in the City's approach to accommodating growth in a manner that would reduce environmental impacts (e.g., traffic, noise, congestion, aesthetic change) in low density residential neighborhoods, provide mixed-use development to encourage walking between activities and achieve population densities that can support public transportation and reduce vehicle miles traveled.

Table IV.I-6, Comparison of Project Characteristics to the Applicable Objectives of the Central City Community Plan, identifies the key provisions of the Central City Community Plan to provide the various reductions in environmental impacts addressed in the preparation of the plan and compares those provisions to the Project characteristics that pertain to the objectives and policies identified. As indicated in the Table IV.I-6, the Project would be consistent with and would not conflict with the provisions of the Central City Community Plan. The Project would provide uses, densities and a land use arrangement that support the expected reductions in environmental impacts that would occur with development that complies with the Central City Community Plan.

TABLE IV.I-6
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE OBJECTIVES OF THE CENTRAL CITY COMMUNITY PLAN

Objectives	Project Characteristics
Residential	
Objective 1-1: To promote development of residential units in South Park.	The provision of residential development in South Park supports walkable accessibility to surrounding entertainment districts and the financial district thus reducing the use of private vehicles for activities, creates symbiotic relationships that contribute to the vibrancy of Central City area and provides increased density to support the use of public transportation. The Project would provide up to 794 new

Objectives	Project Characteristics
Objective 1-2: To increase the range of housing choices available to Downtown employees and residents.	residential units in the South Park neighborhood, a district that is designated to provide residential population to support surrounding entertainment and financial districts. The Project would provide up to 794 new residential units that would range in size from studios to three-bedroom units, thus, providing a range of modern, attached living unit floor plans in the Downtown area.
Objective 1-3: To foster residential development which can accommodate a full range of incomes.	As described above, the Project would provide a range in size of residential units at varied rates contributing to the overall housing stock available within the City.
Policy 2-2.3 Support the growth of neighborhoods with small, local retail services.	The Project would provide 12,504 square feet of retail space that would serve the needs of Project and nearby residents. Further, the retail space would contribute to the pedestrian friendly ground level retail milieu that provides a coherent set of support businesses for residential development within the area.
Objective 2-4: To encourage a mix of uses which create an active, 24-hour downtown environment for current residents and which would also foster increased tourism.	The Project's retail businesses, establishing a continuation of the pedestrian friendly ground level retail milieu in the Project vicinity, would enliven neighborhood activity beyond the standard workday and support the extension of the retail activities in the vicinity to the more active nightlife activity along the Figueroa corridor.
Open Space and Recreation	
Objective 4-1: To encourage the expansion and additions of open spaces as opportunities arise.	While privately provided, the Project's 2,728-square-foot ground level public Plaza with streetscape, landscaping, and public art display would provide direct open space uses on the Project Site for the public benefit and would contribute to the overall flow of open space through the Downtown area.
Policy 4-4.1: Improve Downtown's pedestrian environment in recognition of its important role in the efficiency of Downtown's transportation and circulation systems and in the quality of life for its residents, workers, and visitors.	
Police Protection	
Policy 5-2.1: Promote the safety and security of personal property through proper design and effective use of the built environment which can lead to a reduction in the incidence and fear of crime, reduction in calls for police service, and to an increase in the quality of life.	The Project would include design features to enhance safety around the Project Site, as well as provide private security on the Project Site. As such, the Project would complement the provision of police services and reduce demand of services by the Los Angeles Police Department (LAPD). Outdoor areas would be exposed to windows and allow for natural surveillance, interior and exterior spaces would be well lit with proper signage to direct flow of people and decrease opportunities for crime, building access/design would be secured to residential areas (electronic keys specific to each user), building entryways and Plaza would be well-lit, staff would be trained in safety

Objectives	Project Characteristics
	and sound security policies, entrances and exits of the building would be monitored, 24-hour video surveillance would be provided, and trained 24-hour security personnel would provide assistance to residents and visitors with Site access. By reducing demand for police services, existing facilities can better support the needs of the Community, while avoiding the construction of new facilities. For further discussion, refer to Section IV.L.2, <i>Police Protection</i> , of this Draft EIR. As indicated, therein impacts of the Project on Police services would be less than significant.

SOURCE: ESA, 2018.

(ii) DTLA 2040

As described above, DTLA 2040 is the pending update to the Central City and Central City North Community Plans. The EIR for the Community Plan update is currently under preparation, is subject to change and City approval, and the components of it that would be approved are uncertain at this time. Until the DTLA 2040 Plan is adopted, the Central City Community Plan continues to be the applicable land use element of the City's General Plan applicable to the Project Site. Notwithstanding, the following discussion is provided for information purposes.

The purpose of DTLA 2040 is to refine the existing Central City Community Plan to reflect added growth in the Downtown area, respond to changing conditions in the Downtown area, and update the vision for the Downtown area. As is the case with the current Community Plan, DTLA 2040 will include land use designations and development standards that if followed, would reduce impacts on the environment including but not limited to: reductions in vehicle miles traveled air quality emissions, and noise; inefficient consumption of energy and adverse effects on the physical form and design of the Downtown area. While specific details are subject to final consideration by the City, it may be noted that the DTLA 2040 general concept for development in the Downtown area is consistent with the general provisions of the current Community Plan. Under the currently proposed provisions of DTLA 2040, the Project Site is located within an area designated as "Transit Core," which is an area defined as a dense center of activity built around regional transit hubs that provide easy access for pedestrians, transit users, and cyclists to a variety of alternative transportation options for mobility. Transit Core areas provide an urban experience, with towers activated by ground-floor retail that engages and invites pedestrians. The Project would locate a mixed-use development, including 794 residential units, 12,504 square feet of commercial (restaurant/retail) floor area, and a 2,728-square-foot Plaza, with seating, landscaping, and public art, within a designated Transit Priority Area. The Project is adjacent to the proposed Downtown Los Angeles Streetcar Project, the W.11th Street bike lane, multiple bus and shuttle lines in the immediate vicinity, and 1,500 feet from the Pico/Flower station for Metro's Expo and Blue Lines light rail. The Project would therefore be consistent with DTLA 2040's "Transit Core" concept.

The Project, which would incorporate sidewalk improvements, deep tower setbacks, a public Plaza, public art, landscaping, and street level commercial/retail space accessed directly from the sidewalk, would support the DTLA 2040's core principles to create world class streets and public realm, to strengthen neighborhood character, and to promote a transit, bicycle, and pedestrian friendly environment. In addition, the Project's high-density residential development would be consistent with the DTLA 2040 objectives to support and sustain Downtown's ongoing revitalization and to grow and support Downtown's residential base. As noted above, DTLA has not been adopted and is not applicable to the Project Site; however, it is noted that the Project would not be expected to conflict the provisions of DTLA 2040 and its implementation procedures.

(h) *Redevelopment Plan for the City Center Redevelopment Project Area*

As discussed in the Regulatory Framework subsection, above, the City Center Redevelopment Plan was initiated pursuant to state laws and carried out under the auspices of the CRA/LA, that were applicable at the time of its inception. Subsequently, 2011 state legislation dissolved the CRAs statewide. At this time, CRA/LA, a DLA, implements and enforces the requirements of the City Center Redevelopment Plan. As clarified by the CRA/LA, Community Plan land use and zoning designations prevail over the Redevelopment Plan map designations and development permit applications for discretionary land use approvals do not require CRA/LA discretionary land use approvals. However, projects do continue to be reviewed by CRA/LA for general conformance with the City Center Redevelopment Plan.

The City Center Redevelopment Plan includes 10 sections with a variety of provisions, most of which are not applicable to the Project as they pertain to redevelopment arrangements and funding under previous Redevelopment legislation. However, certain provisions of the City Center Redevelopment Plan pertain to development in the designated City Center and South Park area in which the Project is located. Project Approvals, as described in Chapter II, *Project Description* of this Draft EIR, include the requirement of an approval/clearance from CRA/LA for conformance with the City Center Redevelopment Plan.

The relevant provisions of the Redevelopment Plan are contained in Sections 100, *Introduction*, and Section 500, *Land Uses Permitted in the Project Area*. Of particular note, Section 502, *Map*, pertains to the relationship between the Redevelopment Plan and the other plans that address development in City Center area. Section 502 discusses procedures by which the Plan map might be adjusted and indicates that it is the intent of the Redevelopment Plan to stay current with, and be modified to reflect changes in, the Central City Community Plan. As further clarified by the CRA/LA in a memorandum dated June 21, 2012, the land use designation for any property in a Project Area set forth in the Redevelopment Plan Map and the corresponding land use regulations shall defer to and

are superseded by the underlying General Plan, Community Plan, and Zoning Ordinance land use designations and regulations.¹⁸

The applicable provisions of the City Center Redevelopment Plan are identified and compared to Project characteristics in Appendix J, *Supplementary Land Use Table*, of this Draft EIR, *Supplementary Land Use Table - 1*. As indicated in Supplementary Land Use Table – 1, the Project Characteristics are consistent with, and would not conflict with, the City Center Redevelopment Plan.

(i) *City of Los Angeles Zoning Code*

The LAMC includes applicable legal requirements related to, as relevant here, development locations, densities and massing characteristics.

The Project Site is zoned [Q]R5-4D-O. The R5 component of the designation permits the development of high-density residential land uses; and the Project's 794 residential units so qualify. The applicable "Q" Condition, pursuant to Ordinance No. 164,307, allows commercial uses to be included along with residential development, provided the floor area for the commercial uses does not exceed a 2:1 FAR. The Project's commercial floor area (12,504 square feet or 1.7 percent of the Project's total 751,777 square feet) would reflect a FAR of 0.22:1 and, as such, would not exceed the allowable 2:1 commercial FAR limit.

The Project's designation of Height District No. 4 in the R5 zone does not provide a specified height limit, but limits development to an FAR of 13:1. However, the "D" limitation, pursuant to Ordinance No. 164,307, restricts the floor area to a maximum of 6:1 FAR unless additional floor area is permitted through a TFAR. The TFAR is a regulatory device that allows individual projects to increase their floor area while maintaining an upward limit on the overall amount of development in a given area; thus limiting the total environmental impacts that might occur in the larger vicinity as a result of development in excess of upward limits set by the City. At the same time the TFAR ordinance provides a mechanism for having individual development projects provide community benefits that improve the quality of the area and in some cases reducing the extent of environmental impacts.

The Project includes the implementation of TFAR provisions, and is qualified to do so as it is located within a designated Transit Priority Area. As a mixed use development the Project qualifies for a 13:1 FAR based on the buildable area extending out to the centerlines of the surrounding streets and alley pursuant to Article 14.5 of the LAMC. Article 4.5 provides for TFAR pursuant to provisions of the Community Plan and the City Center Redevelopment Project, which allows entitled development rights to be transferred from one project site to another within the Central City TFAR area, along with the provision of public benefits. The transferred development density would be from the Los Angeles

¹⁸ CRA/LA, A designated Local Authority. Clarification Regarding Discretionary Land Use Action. http://www.crala.org/internet-site/Meetings/Board_Agenda_2012/upload/June_21_2012_Item_13.pdf. Accessed June 15, 2018.

Convention Center (Donor Site) at 1201 S. Figueroa Street, a City-owned property. The Project, as a Receiver Site, would gain approximately 404,803 square feet of transferred floor area that would be added to the amount of development that would otherwise be allowed without the implementation of the TFAR. This base level amount of development is 346,974 square feet (6:1 FAR). The total floor area of 751,777 square feet would result in a Transit Area Mixed Use Project FAR of 13:1.

The Project is located within the Greater Downtown Housing Incentive area and therefore provisions of the LAMC that were amended by Ordinance No. 179,076. Pursuant to these provisions the Project Site is not subject to density limits, except as accounted for under the FAR limits and is not subject to yard requirements. The Project is however, subject to compliance with the applicable Urban Design Standards and Guidelines. Such compliance is discussed under the evaluation of Consistency with the Downtown Design Guide in Section IV.A, *Aesthetics*, of this Draft EIR.

The Project would also be consistent with open space requirements of the LAMC as discussed further in Section IV.L.5, *Parks and Recreation*, of this Draft EIR.¹⁹

LAMC Section 16.05 (Site Plan Review) requires a Site Plan Review for the addition of 50,000 square feet or more of non-residential floor area, or the addition of 50 or more dwelling units, or a net increase of 1,000 or more average daily trips. Because the Project would exceed these limits, a Site Plan Review is a proposed entitlement action discussed in Chapter II, *Project Description*, of this Draft EIR.

The Project is providing permitted uses in the R5 zone, with building height and FAR, open space, and other development provisions that meet the applicable regulations or provisions of the LAMC. Therefore, the Project would be consistent with and would not conflict with environmental protections associated with the development locations, densities and massing characteristics established in the General Plan, and other related plans discussed above, which are implemented through provision of the LAMC.

(j) *Summary of Land Use Impacts*

As indicated in the prior analyses, the Project would be consistent with, and would not conflict, with applicable land use plans, policies and regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

¹⁹ The Project would also provide parking spaces pursuant to the requirements of LAMC; and therefore would support consistency with the provisions of the LAMC. Pursuant to SB 743 parking for the Project is not an environmental issue to be examined in the Draft EIR. To the extent environmental impacts associated with the Project's parking would occur, those impacts are addressed in other sections of this Draft EIR. Refer in particular to Section IV.B, *Air Quality*; IV.F, *Greenhouse Gas Emission*; IV.A, *Aesthetics* and IV.J, *Noise and Vibration*; among others.

e) Cumulative Impacts

Chapter III, *General Description of Environmental Setting*, of this Draft EIR provides a list of 195 projects that are planned, under construction or recently developed in the Project's transportation study area, as provided in Table III-1. **Figure III-1, Related Projects Map**, also included in Chapter III, illustrates the geographic extent and location of the related projects. The related projects represent infill development within the built-out Downtown Los Angeles area and surrounding communities. The related projects, like the Project, contribute to the residential with supporting commercial uses character of the South Park neighborhood and the Los Angeles Convention Center/Area Sphere of Influence. Approximately 66 related projects are located in the South Park area; and of those, approximately 41 related projects are located within the Convention Center/Arena Sphere of Influence. The related projects located in the more immediate vicinity of the Project Site are listed in **Table IV.I-7, Land Uses of Related Projects Located Nearest the Project Site**. As shown in Table IV.I-7, the preponderance of related projects in the Project's vicinity are multi-family residential uses with a commercial component. This prospective development would be consistent with the prevailing land use trend in the area, as exemplified in prominent mixed-use buildings that have been developed in the Project's vicinity within the past ten years or buildings currently under construction in the immediate area. Established mixed use buildings in the area include the nearby 13-story Elleven South Lofts building (1111 S. Grand Avenue), the 24-story Evo South building (1155 S. Grand Avenue), and the 19-story Luma South Lofts (1100 S. Hope Street). These buildings provide high-density residential uses in the Project neighborhood, as well as landscaped sidewalks and commercial uses along the street front. They also represent the anticipated land use character of the majority of proposed mixed use related projects listed in Table IV.I-7.

TABLE IV.I-7
LAND USES OF RELATED PROJECTS LOCATED NEAREST THE PROJECT SITE

Related Project Number and Use		
1 – Residential Mixed Use	44 – Residential Mixed Use	105 – Residential Mixed Use
6 – Residential Mixed Use	48 - Apartments	114 - Hotel
8 – Residential Mixed Use	49 – Residential Mixed Use	140 – Residential Mixed Use & Hotel
10 – Restaurant	53 – Residential Mixed Use	141 – Residential Mixed Use
14 – Residential Mixed Use	54 – Residential Mixed Use	143 – Residential Mixed Use
15 - Residential Mixed Use	60 – Residential Mixed Use	164 - Hotel
16 – Residential Mixed Use	61 – Residential Mixed Use	190 – Residential Mixed Use
18 – Residential Mixed Use	82 – Residential Mixed Use	191 – Residential Mixed Use
37 - Residential Mixed Use	100 - Condominiums	

SOURCE: ESA, 2018.

Prominent mixed-use buildings that are currently under construction, are completed or are contemplated and that are located within the immediate surroundings of the Project Site include the following: Related Project No. 6, the 38-story, 666-unit, Aven Project (1120 S. Grand Avenue); Related Project No. 16, the adjacent 25-story, 151-unit Ten50 mixed use development; Related Project No. 18, the 63-story 528 unit, 11th and Hill Project (1111 S. Hill Street), Related Project No. 60, the adjacent, 7-story, 225-unit Oakwood Apartments (1001 S. Olive Street), Related Project No. 190, the 60-story, 713 unit, DTLA South Park Project, Mack Urban Site 2 (1120 S. Olive Street); and Related Project No. 191, the 51-story, 537 unit DTLA South Park Project, Mack Urban Site 3 (1105 S. Olive Street). As with other mixed-use buildings in the area and other anticipated related projects, these buildings contribute to a robust, mixed-use environment that is replacing the area's surface parking lots and older, single-story commercial buildings. As with the Project, related projects would contribute to the area's pedestrian activity and street-oriented retail businesses.

(1) Construction

Construction activities are short-term activities, which do not necessarily affect land use relationships in a given area, separate from their intended uses, as discussed for Operations below. Construction activities, independent from implementing proposed final uses, would not divide a community and would not determine whether related projects would be consistent with, or conflict with the objectives of SCAG's 2016-2040 RTP/SCS, goals and policies or the City of Los Angeles adopted land use plans, policies and regulations evaluated above. **As such, cumulative land use impacts involving construction activities of the Project and related projects would be temporary, highly localized, and less than significant.**

(2) Operation

(a) *Division of a Community*

Of the related Projects, four are transit improvement projects that would be implemented within existing roadways or in an underground tunnel. None are located in the immediate vicinity of the Project Site; and none would divide an existing community.

The remaining related projects are located within the street grid, and typical of mixed-use development that complements the existing uses in the Downtown area and the vision for development established in the Community Plan. None would create new barriers in the Community's development patterns. **Therefore, the related projects, along with the Project, would not physically divide an established community and cumulative impacts would be less than significant.**

(b) *Plans Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect*

The related projects would, like the Project, contribute to the land use relationships in the Central City Community Plan area (which reflects the other General Plan elements), most

notably South Park, the Convention Center/Arena Sphere of Influence and the immediate Project vicinity. To the extent that the new development supports the land use types, locations and densities called for in the Community Plan, new development will support the environmental benefits taken into account in the preparation of those plans.

According to the Community Plan, South Park is recognized as a mixed-use community with a significant concentration of housing, the proximate siting of auxiliary support services such as retail and commercial developments that provide employment opportunities for area residents,²⁰ to create a linkage between jobs and housing.²¹ The Convention Center/Arena Sphere of Influence is mostly developed with office, retail, hotel and mixed use residential development, including uses that support the Convention Center and Sports and Entertainment District. The proximity of transit is expected to encourage visitors and residents to take the subway and walk along Figueroa Street to the Convention Center or Arena and thus, increase the pedestrian activity along the streets. This district is intended to offer residents and workers a nearby location for their entertainment, shopping, and dining needs as well as a place to go and spend leisure time.

The related projects, in combination with the Project, would be consistent with, and would not conflict with, the objectives of the 2016-2040 RTP/SCS, the purpose of which is to reduce vehicle miles through the concentration of new development in areas served by alternative transportation modes and within areas of existing infrastructure and services, so as to reduce the environmental impacts of inefficient provision of transportation and other infrastructure. The concentration of related projects in the Community Plan Area would be consistent with the General Plan Framework Element's Downtown Center designation of the area, with the objectives of the Community Plan to maximize residential densities and to concentrate new growth in South Park, and with other land use policies related to mixed use street fronts, pedestrian activity, upgraded walkability, high quality building design, and revitalization of the Downtown.

As with the Project, related projects would be required to comply with applicable land use policies and regulations through review by City regulatory agencies and would be subject to CEQA review. This would include compliance with the LAMC. To the extent that individual related projects might seek variations from these regulatory measures, such projects would need to demonstrate that those variations are consistent with the intent of the above cited plans; and such variations would be idiosyncratic to those developments. **Because the general land use characteristics of the Project and related projects would be consistent with, and not conflict with plans adopted for the purpose of avoiding or mitigating an environmental effect, cumulative land use impacts would be less than significant.**

²⁰ City of Los Angeles, Department of City Planning, Central City Community Plan, page I-7, <https://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>. Accessed April 3, 2018.

²¹ City of Los Angeles, Department of City Planning, Central City Community Plan, page I-7, <https://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>. Accessed April 3, 2018.

f) Mitigation Measures

The Project would result in less than significant impacts with respect to land use policy and planning. Therefore, no mitigation measures would be required.

g) Level of Significance After Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.J. Noise

1. Introduction

This section analyzes the Project's potential impacts with regard to noise and vibration on off-site sensitive receptors resulting from Project construction and operation. The analysis describes the existing noise environment within the Project Site area, estimates future noise and vibration levels at surrounding land uses associated with construction and operation of the Project, assesses the potential for significant impacts, and identifies mitigation measures to address any potential significant impacts. An evaluation of the potential cumulative noise impacts of the Project and related projects is also provided. This section summarizes the noise and vibration information and analysis provided in the *Noise and Vibration Technical Appendix*, which is attached as Appendix K of this Draft EIR, and incorporated by reference herein.

2. Environmental Setting

Because of the technical nature of noise and vibration impacts, a brief overview of basic noise principals and descriptors is provided below.

a) Noise and Vibration Basics

(1) Noise Principles and Descriptors

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted (i.e., loud, unexpected, or annoying) sound. Acoustics is defined as the physics of sound, and addresses its propagation and control.¹ In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determine the sound level and characteristics of the noise perceived by the receiver.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB

¹ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013. Accessed July 2018.

corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.²

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all of the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.³

The typical human ear is not equally sensitive to the frequency range from 20 to 20,000 Hz. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements.⁴ Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in **Figure IV.J-1**, Decibel Scale and Common Noise Sources.

(2) Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time, as presented in Figure IV.J-1. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with many unidentifiable individual contributors. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume.

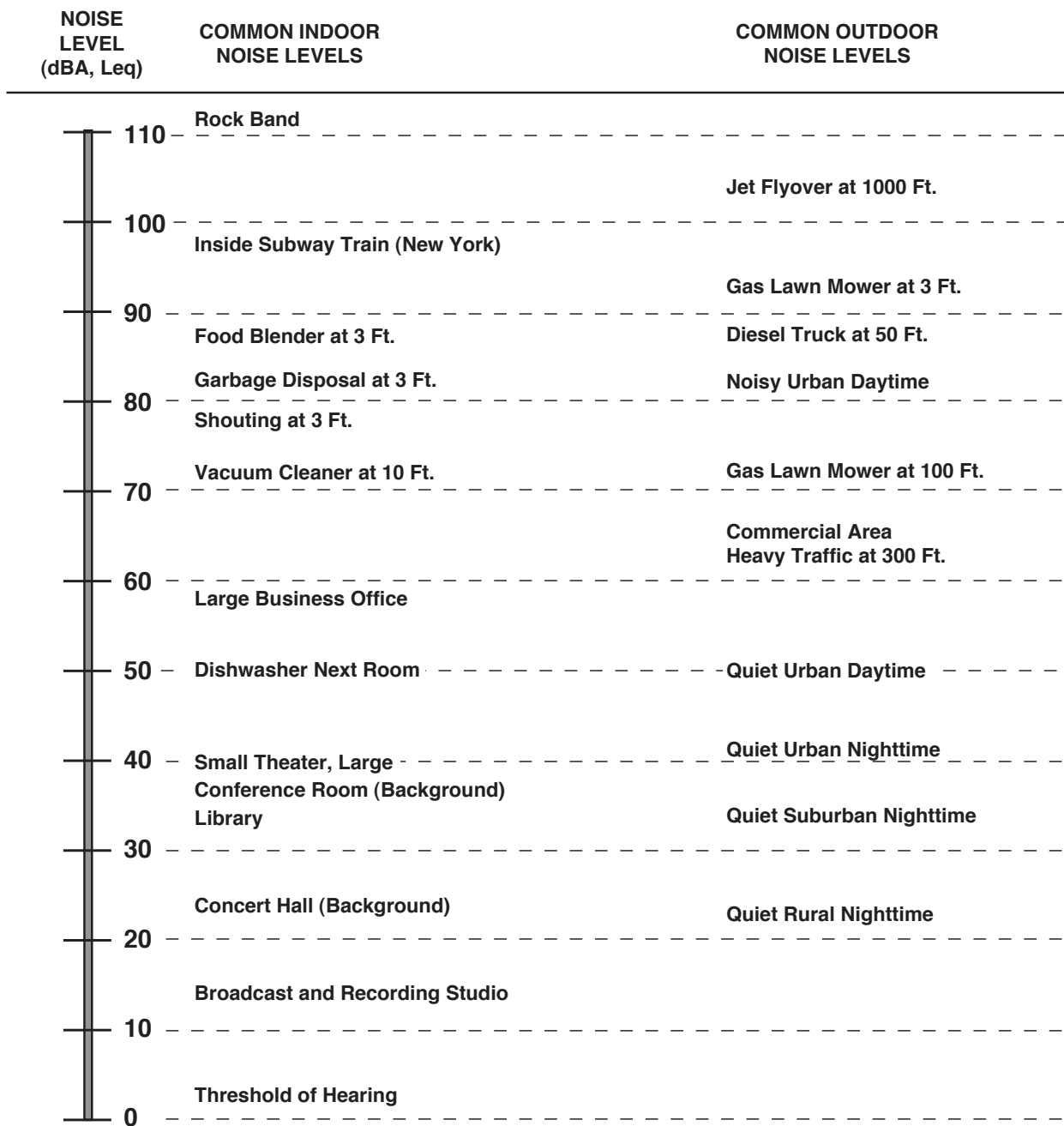
What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.⁵

² California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.3, September 2013. Accessed July 2018.

³ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.3, September 2013. Accessed July 2018.

⁴ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.3, September 2013. Accessed July 2018.

⁵ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013. Accessed July 2018.



DPCR-H05-EP

SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: [http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf](http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf)

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Figure IV.J-1
Decibel Scale and Common Noise Sources

These successive additions of sound to the community noise environment change the community noise level from moment to moment, requiring the noise exposure to be measured over periods of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. The following noise descriptors are used to characterize environmental noise levels over time.⁶

- L_{eq}:** The equivalent sound level over a specified period of time, typically, 1 hour (L_{eq}). The L_{eq} may also be referred to as the average sound level.
- L_{max}:** The maximum, instantaneous noise level experienced during a given period of time.
- L_{min}:** The minimum, instantaneous noise level experienced during a given period of time.
- L_x:** The noise level exceeded a percentage of a specified time period. For instance, L₅₀ and L₉₀ represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- L_{dn}:** The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 P.M. and 7:00 A.M. to account nighttime noise sensitivity. The L_{dn} is also termed the day-night average noise level (DNL).
- CNEL:** The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that includes an addition of 5 dBA to measured noise levels between the hours of 7:00 P.M. and 10:00 P.M. and an addition of 10 dBA to noise levels between the hours of 10:00 P.M. and 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively.

(3) Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance);
- Interference effects (e.g., communication, sleep, and learning interference);
- Physiological effects (e.g., startle response); and
- Physical effects (e.g., hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise

⁶ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.2, September 2013. Accessed July 2018.

exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep.⁷

With regard to the subjective effects, the individuals' responses to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur:⁸

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived.
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference.
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference.
- A change in ambient noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the dB scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder

⁷ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013. Accessed July 2018.

⁸ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013. Accessed July 2018.

than one source, and ten sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source.⁹

(4) Noise Attenuation

When noise propagates over a distance, the noise level reduces with distance depending on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as “spherical spreading.” Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between 6 dBA for acoustically “hard” sites and 7.5 dBA for “soft” sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 dBA at 100 feet, 68 dBA at 200 feet).¹⁰ Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water.¹¹ No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source.¹² Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, provides an excess ground attenuation value of 1.5 dBA (per doubling distance).¹³

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as “line” sources, which approximate the effect of several point sources.¹⁴ Noise from a line source propagates over a cylindrical surface, often referred to as “cylindrical spreading.”¹⁵ Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.¹⁶ Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have

⁹ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1.1, September 2013. Accessed July 2018.

¹⁰ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

¹¹ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

¹² California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

¹³ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

¹⁴ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.1, September 2013. Accessed July 2018.

¹⁵ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.1, September 2013. Accessed July 2018.

¹⁶ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.1, September 2013. Accessed July 2018.

lowered noise levels.¹⁷ Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances. Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels.¹⁸

(5) Vibration Fundamentals

Vibration can be interpreted as energy transmitted in waves through the ground or man-made structures, which generally dissipate with distance from the vibration source. Since energy is lost during its transfer from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual*, groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard.¹⁹ In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and certain construction activities, such as blasting, pile-driving, and operation of heavy earth-moving equipment.²⁰

Several different methods are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec), and is most frequently used to describe vibration impacts to buildings.²¹ The root mean square (RMS) amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body.²² Decibel notation (VdB) is commonly used to measure RMS. The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity.²³ The decibel notation VdB acts to compress the range of numbers required to describe vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would

¹⁷ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.3, September 2013. Accessed July 2018.

¹⁸ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.3, September 2013. Accessed July 2018.

¹⁹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 7, 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed July 2019.

²⁰ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 7, 2018.

²¹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 5.1, 2018.

²² Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 5.1, 2018.

²³ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 5.1, 2018.

interfere with operations within the building or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration sensitive equipment.²⁴

Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to the vibration of floors and walls; it is perceptible only inside buildings.²⁵ The relationship between groundborne vibration and groundborne noise depends on the frequency content of the vibration and the acoustical absorption characteristics of the receiving room. For typical buildings, groundborne vibration that causes low frequency noise (i.e., the vibration spectrum peak is less than 30 Hz) results in a groundborne noise level that is approximately 50 decibels lower than the velocity level. For groundborne vibration that causes mid-frequency noise (i.e., the vibration spectrum peak is 30 to 60 Hz), the groundborne noise level will be approximately 35 to 37 decibels lower than the velocity level.²⁶ Therefore, for typical buildings, the groundborne noise decibel level is lower than the groundborne vibration velocity level.

b) Regulatory Framework

(1) Federal

(a) Federal Noise Standards

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (USEPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, USEPA issued guidance levels for the protection of public health and welfare in residential areas of an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA.²⁷ These guidance levels are not standards or regulations and were developed without consideration of technical or economic feasibility. There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project.

(b) Federal Vibration Standards

There are no federal vibration standards or regulations adopted by any agency that are applicable to evaluating vibration impacts from land use development projects such as the Project. However, the Federal Transit Administration (FTA) has adopted vibration

²⁴ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 6.1, 6.2, and 6.3, 2018.

²⁵ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 5.4, 2018.

²⁶ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 6-3 and Table 6-14, pages 126 and 146, 2018.

²⁷ United States Environmental Protection Agency, EPA Identifies Noise Levels Affecting Health and Welfare, April 1974, <https://archive.epa.gov/epa/aboutepa/epa-identifies-noise-levels-affecting-health-and-welfare.html>. Accessed July 2018.

criteria for use in evaluating vibration impacts from construction activities.²⁸ The vibration damage criteria adopted by the FTA are shown in **Table IV.J-1, Construction Vibration Damage Criteria**.

**TABLE IV.J-1
CONSTRUCTION VIBRATION DAMAGE CRITERIA**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
SOURCE: FTA, Transit Noise and Vibration Impact Assessment Manual, 2018.	

The FTA has also adopted standards associated with human annoyance for determining the groundborne vibration and noise impacts from ground-borne and noise on the following three off-site land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional.²⁹ The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but still have the potential for activity interference. The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table IV.J-2, Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment**. No thresholds have been adopted or recommended for commercial and office uses.

²⁸ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 7-5, page 186, 2018.

²⁹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 6-1, page 124, 2018.

TABLE IV.J-2
GROUND-BORNE VIBRATION AND GROUND-BORNE NOISE IMPACT CRITERIA FOR GENERAL ASSESSMENT

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

a "Frequent Events" is defined as more than 70 vibration events of the same source per day.

b "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

c "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.

d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

SOURCE: FTA, Transit Noise and Vibration Impact Assessment Manual, 2018.

(2) State

(a) California Noise Standards

The State of California has not adopted statewide standards for environmental noise, but the Governor's Office of Planning and Research (OPR) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as presented in **Figure IV.J-2, Guidelines for Noise Compatible Land Use**.³⁰ The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise levels are divided into four general categories, which vary in range according to land use type: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL (CNEL = Community Noise) is considered to be "normally acceptable" for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be "clearly unacceptable."

In addition, California Government Code Section 65302 requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(f) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

³⁰ State of California, Governor's Office of Planning and Research, General Plan 2017 Guidelines, page 377, http://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf. Accessed August 1, 2018.

Land Use Category	Noise Exposure (L_{dn} or CNEL, dBA)					
	55	60	65	70	75	80
Residential – Low Density Single-Family, Duplex, Mobile Home						
Residential – Multiple Family						
Transient Lodging – Motel, Hotel						
School, Library, Church, Hospital, Nursing Home						
Auditorium, Concert Hall, Amphitheater						
Sports Arena, Outdoor Spectator Sports						
Playground, Neighborhood Park						
Golf Course, Riding Stable, Water Recreation, Cemetery						
Office Building, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

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

CONDITIONALLY ACCEPTABLE: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE: New construction or development should generally not be undertaken. Construction costs to make the indoor environmental acceptable would be prohibitive and the outdoor environment would not be usable.

D:\XXXX

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. The standards require an acoustical analysis demonstrating that dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

(b) *California Vibration/Groundborne Noise Standards*

The State of California has not adopted statewide standards or regulations for evaluating vibration or groundborne noise impacts from land use development projects such as the Project.

(3) Local

(a) *Los Angeles Municipal Code*

The City of Los Angeles Noise Regulations are provided in Chapter XI of the Los Angeles Municipal Code (LAMC). Section 111.02 of the LAMC provides procedures and criteria for the measurement of the sound level of “offending” noise sources. In accordance with the LAMC, a noise source that causes a noise level increase of 5 dBA over the existing average ambient noise level as measured at an adjacent property line is considered to create a noise violation. To account for people’s increased tolerance for short-duration noise events, the Noise Regulations provide a 5 dBA allowance for a noise source that causes noise lasting more than 5 but less than 15 minutes in any 1-hour period, and an additional 5 dBA allowance (for a total of 10 dBA) for a noise source that causes noise lasting 5 minutes or less in any 1-hour period.³¹

The LAMC provides that in cases where the actual ambient conditions are not known, the City’s presumed daytime (7:00 A.M. to 10:00 P.M.) and nighttime (10:00 P.M. to 7:00 A.M.) minimum ambient noise levels as defined in Section 111.03 of the LAMC should be used. The presumed ambient noise levels for these areas where the actual ambient conditions are not known as set forth in the LAMC Sections 111.03 are provided in **Table IV.J-3, City of Los Angeles Presumed Ambient Noise Levels**. For example, for residential-zoned areas, the presumed ambient noise level is 50 dBA during the daytime and 40 dBA during the nighttime.

³¹ Los Angeles Municipal Code, Chapter XI, Article I, Section 111.02-(b). Accessed July 2018.

**TABLE IV.J-3
CITY OF LOS ANGELES PRESUMED AMBIENT NOISE LEVELS**

Zone	Daytime Hours (7 A.M. to 10 P.M.) dBA (L_{eq})	Nighttime Hours (10 P.M. to 7 A.M.) dBA (L_{eq})
Residential	50	40
Commercial	60	55
Manufacturing (M1, MR1 and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65

SOURCE: LAMC, Section 111.03.

Section 112.02 limits increases in noise levels from air conditioning, refrigeration, heating, pumping and filtering equipment. Such equipment may not be operated in such manner as to create any noise which would cause the noise level on the premises of any other occupied property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than five (5) dB.

Section 112.05 of the LAMC sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard is required only where “technically feasible.”³² Section 41.40 of the LAMC prohibits construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 A.M. to 9:00 P.M.; and Saturdays and National Holidays between 8:00 A.M. to 6:00 P.M.). In general, the City’s Department of Building and Safety enforces noise ordinance provisions relative to equipment and the Los Angeles Police Department (LAPD) enforces provisions relative to noise generated by people.

Section 113.01 of the LAMC prohibits collecting or disposing of rubbish or garbage, operating any refuse disposal truck, or collecting, loading, picking up, transferring, unloading, dumping, discarding, or disposing of any rubbish or garbage, as such terms are defined in Section 66.00 of the LAMC, within 200 feet of any residential building between the hours of 9:00 P.M. and 6:00 A.M. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

Section 91.1207.14.2 prohibits interior noise levels attributable to exterior sources from exceeding 45 dBA in any habitable room. The noise metric shall be either the day-night average sound level (L_{dn}) or the CNEL, consistent with the noise element of the local general plan.

³² In accordance with the City’s Noise Ordinances, “technically feasible” means that the established noise limitations can be complied with at a project site, with the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques employed during the operation of equipment.

(b) *Guidelines for Noise Compatible Land Use*

The City of Los Angeles has adopted local guidelines based, in part, on the community noise compatibility guidelines established by OPR for use in assessing the compatibility of various land use types within a range of noise levels. These guidelines are set forth in the 2006 L.A. CEQA Thresholds Guide (Thresholds Guide) in terms of the CNEL. As explained above, these CNEL guidelines for specific land uses are classified into four categories: (1) “normally acceptable,” (2) “conditionally acceptable,” (3) “normally unacceptable,” and (4) “clearly unacceptable.” As shown in **Table IV.J-4, City of Los Angeles Land Use Compatibility for Community Noise**, the categories overlap to some degree. For example, a CNEL value of 60 dBA is the lower limit of what is considered a “conditionally acceptable” noise environment for multi-family residential uses, although the upper limit of what is considered “normally acceptable” for multi-family residential uses is set at 65 dBA CNEL.³³ New development should generally be discouraged within the “normally unacceptable” category, and new construction or development should generally not be undertaken within the “clearly unacceptable” category. However, if new development does proceed in an area where the noise environment is at a normally unacceptable level, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

TABLE IV.J-4
CITY OF LOS ANGELES LAND USE COMPATIBILITY FOR COMMUNITY NOISE

Land Use	Community Noise Exposure CNEL (dBA)			
	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 70
Multi-Family Homes	50 to 65	60 to 70	70 to 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Transient Lodging—Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50 to 70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50 to 75	—	Above 70
Playgrounds, Neighborhood Parks	50 to 70	—	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	—	70 to 80	Above 80

³³ City of Los Angeles CEQA Thresholds Guide, Section I.2, 2006. Accessed July 2018.

Land Use	Community Noise Exposure CNEL (dBA)			
	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	—

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

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

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

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

SOURCE: City of L.A. CEQA Thresholds Guide, 2006.

(c) Groundborne Vibration and Noise

The City has not adopted standards or regulations addressing groundborne vibration or groundborne noise impacts from land use development projects such as the Project.

c) Existing Conditions

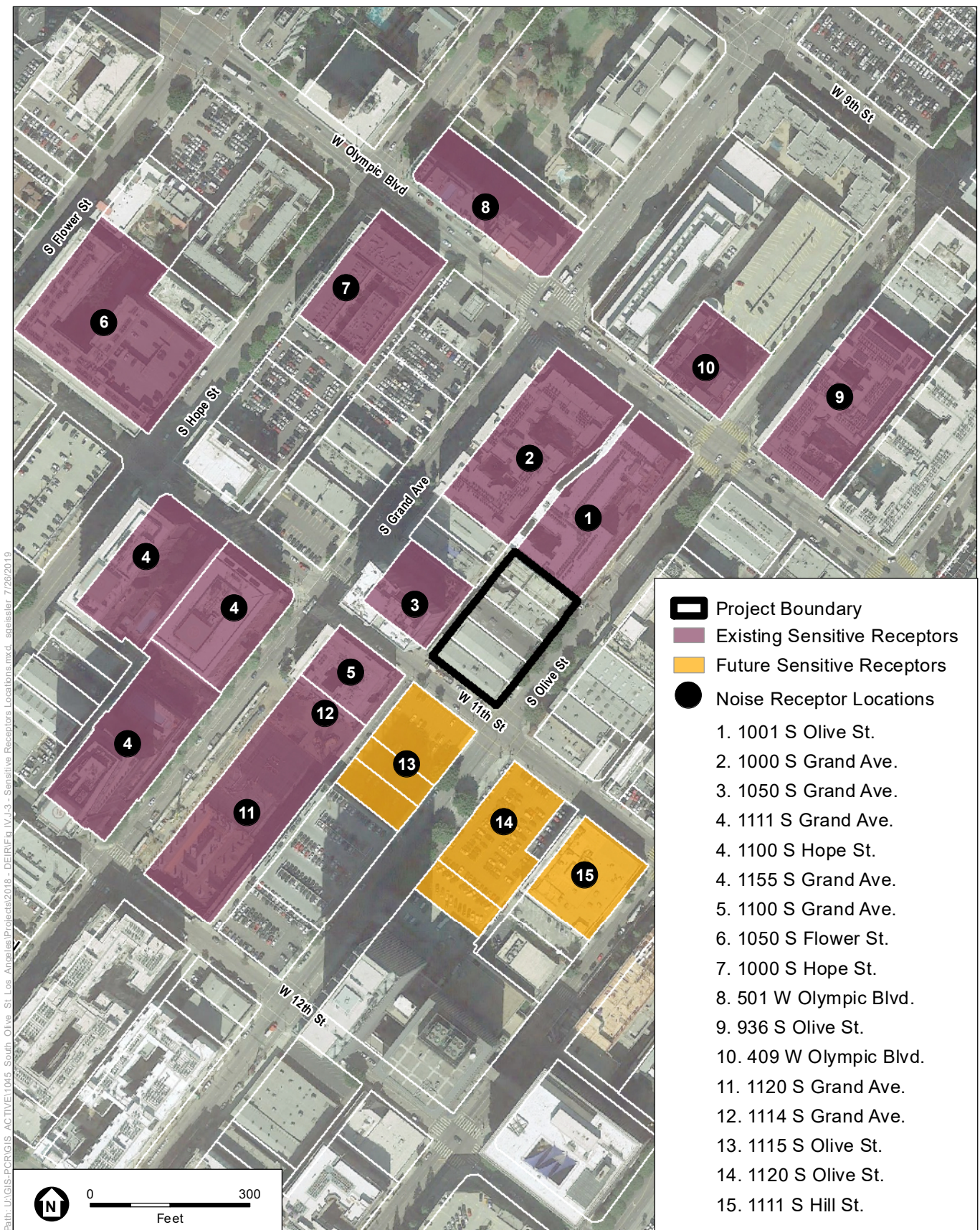
(1) Noise-Sensitive Receptor Locations

Some land uses are considered more sensitive to noise than others due to the types of activities typically involved at the receptor location, and the effect that noise can have on those activities and the persons engaged in them. The Thresholds Guide states that residences, schools, motels and hotels, libraries, religious institutions, hospitals, nursing homes, and parks are generally more sensitive to noise than commercial and industrial land uses.³⁴

Existing noise-sensitive uses within 500 feet of the Project Site include the following as shown in **Figure IV.J-3, Sensitive Receptors Located Nearest to the Project Site**:

1. A seven-story mixed-use multi-family development is located adjacent to the Project Site to the north (1001 S. Olive Street; Oakwood Olympic & Olive project).
2. A seven-story mixed-use multi-family development is located adjacent to the Project Site to the northwest (1000 S. Grand Avenue; By Windsor project).

³⁴ City of Los Angeles CEQA Thresholds Guide, page I.1-3, 2006.



SOURCE: Google Earth, 2016.

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Figure IV.J-3
Sensitive Receptor Locations Nearest to the Project Site

3. A 20-story mixed-use multi-family high-rise building is located to the west of the Project Site (1050 S. Grand Avenue; Ten50 project).
4. Three mixed-use multi-family developments are located at the southwest corner of W. 11th Street and S. Grand Avenue (1155 S. Grand Avenue, 1111 S. Grand Avenue, 1100 S. Hope Street; located to the west of R3).
5. A thirteen-story multi-family development is located to the southwest of the Project Site (1100 S. Grand Avenue; Grand Lofts condominiums).
6. Mixed-use multi-family developments are located at the northwest corner of W. 11th Street and S. Hope Street (1050 S. Flower Street, located to the west of R4).
7. A six-story mixed-use multi-family development is located at the southeast corner of W. Olympic Boulevard and S. Hope Street (1000 S. Hope Street; Packard Lofts).
8. Mixed-use multi-family developments are located at the northwest corner of W. Olympic Boulevard and S. Grand Avenue (501 W. Olympic Boulevard).
9. Mixed-use multi-family developments are located at the northeast corner of W. Olympic Boulevard and S. Olive Street (936 S. Olive Street).
10. A multi-family development is located at the northwest corner of W. Olympic Boulevard and S. Olive Street (409 W. Olympic Boulevard; Reserve Lofts).
11. A mixed-use residential development is located at the northwest corner of W. 12th Street and Margo Street (1120 S. Grand Avenue).
12. The South Grand Park located between W. 11th Street and W. 12th Street along S. Grand Avenue (1114 S. Grand Avenue).

Future Sensitive Receptor Locations (Sensitive Receptors Not Built Yet):

13. The DTLA South Park Project (Mack Urban Site 3) will be constructed at the southwest corner of W. 11th Street and S. Olive Street (1115 S. Olive Street).
14. The DTLA South Park Project (Mack Urban Site 2) will be constructed at the southeast corner of W. 11th Street and S. Olive Street (1120 S. Olive Street).
15. A 53-story mixed-use multi-family development will be constructed at the southwest corner of W. 11th Street and S. Hill Street (1111 S. Hill Street; 11th and Hill Tower).

As shown in Figure IV.J-3 and **Figure IV.J-4, Noise Measurement Locations**, and discussed below, ambient noise measurements were taken for this analysis at selected locations dispersed throughout the noise sensitive uses closest to the Project Site. All other noise-sensitive uses of the type listed in the Thresholds Guide are located at greater distances from the Project Site and would therefore experience lower noise levels from potential sources of noise located on the Project Site. Therefore, noise levels at additional sensitive receptors located beyond those identified above were not evaluated.

(2) Ambient Noise Levels

The predominant existing noise source near the Project Site is roadway noise from the area bounded by W. Olive Street to the east, 11th Street to the south, S. Grand Avenue to the west, and Olympic Boulevard to the north. Secondary noise sources include general residential- and commercial-related activities associated with loading dock/delivery truck activities, trash compaction, and refuse service activities.

The ambient noise measurements that were conducted at the nine locations shown on Figure IV.J-4, were chosen to be representative of the impacts on the sensitive receptors within the Project Site vicinity that are closest to the Project Site. These measurements also characterize the existing noise environment in the Project Site vicinity. Short-term ambient noise measurements were conducted between 8:00 A.M. to 10:00 A.M. on Wednesday, January 31, 2018, and long-term ambient noise measurements were conducted from Wednesday, January 31 through Thursday, February 1, 2018. Long-term (24-hour) measurements were conducted at locations R1 and R2, and short-term (15-minute) noise measurements were conducted at locations R3 through R8. The measurement locations as shown on Figure IV.J-4, are as follows:

- R1: Represents the existing noise environment at the seven-story Oakwood Olympic & Olive mixed-use residential development on the northern boundary of the Project Site. The sound meter was placed at the northwestern corner of the Project Site at S. Olive Street.
- R2: Represents the existing noise environment at the southern Project Site boundary just east of the southern boundary of the 20-story Ten50 project residential mixed-use building adjacent to the Project Site. The sound meter was placed at the western side of the southern property line of the Project Site along W. 11th Street.
- R3: Represents the existing noise environment at the multi-family residential uses along W. 11th Street near S. Grand Avenue. The sound meter was placed at the southwest corner of W. 11th Street and S. Grand Avenue.
- R4: Represents the existing noise environment at the multi-family residential uses along S. Hope Street. The sound meter was placed in front of a multi-family residential building along S. Hope Street.
- R5: Represents the existing noise environment at the multi-family residential uses along W. Olympic Boulevard. The sound meter was placed in front of a multi-family residential building along W. Olympic Boulevard.
- R6: Represents the existing noise environment at the multi-family residential uses along W. Olympic Boulevard. The sound meter was placed at the northeast corner of W. Olympic Boulevard and S. Olive Street, nearby a multi-family residential building.
- R7: Represents the existing noise environment at future mixed use developments at the southeast and southwest corner of W. 11th Street and S. Hill Street. The sound meter was placed at the southeast corner of W. 11th Street and S. Hill Street.

- R8: Represents the existing noise environment at a future mixed use development at the northwest corner of W. 12th Street and Margo Street. The sound meter was placed at the northeast corner of the future mixed use development along Margo Street.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter (SLM). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of approximately 5 feet above the local grade.

A summary of the noise measurements collected is provided in **Table IV.J-5, Summary of Ambient Noise Measurements**. As shown therein, the measured daytime hourly ambient noise levels ranged from a low of 54 dBA L_{eq} to a high of 76 dBA L_{eq} in the vicinity of the Project Site.

TABLE IV.J-5
SUMMARY OF AMBIENT NOISE MEASUREMENTS

Location	Measured Ambient Noise Levels ^a (dBA)			
	Daytime (7 A.M. to 10 P.M.) Hourly L_{eq}	Daytime Average Hourly L_{eq}	Nighttime (10 P.M. to 7 A.M.) Hourly L_{eq}	Nighttime Average Hourly L_{eq}
R1 1/31/18 10:00 A.M. to 2/1/18 10:00 A.M.	63 – 76	69	54 – 68	62
R2 1/31/18 10:00 A.M. to 2/1/18 10:00 A.M.	63 – 76	69	54 – 69	64
R3	72	N/A	N/A	N/A
R4	68	N/A	N/A	N/A
R5	74	N/A	N/A	N/A
R6	79	N/A	N/A	N/A
R7	72	N/A	N/A	N/A
R8	66	N/A	N/A	N/A

^a Detailed measured noise data, including hourly L_{eq} levels, are provided in Appendix K of this Draft EIR.

SOURCE: ESA, 2018.

(3) Existing Roadway Noise Levels

Existing roadway CNEL noise levels were calculated for 50 roadway segments identified for analysis by the City located in the vicinity of the Project Site. The roadway segments selected for analysis were those that are expected to be the most directly impacted by Project-related traffic, which, for the purpose of this analysis, include the roadways that are located near and immediately adjacent to the Project Site. These roadways, when compared to roadways located farther away from the Project Site, would experience the greatest percentage increase in traffic generated by the Project (as distances are

increased from the Project Site, traffic is spread out over a greater geographic area and its effects are reduced).

Existing roadway CNEL noise levels were calculated using the Federal Highway Administration's (FHWA's) Traffic Noise Model (TNM) methodology³⁵ and traffic volumes at the study intersections reported in the Project's Transportation Study prepared by The Mobility Group.³⁶ The model calculates the average noise level at specific locations based on traffic volumes, average speeds, and site environmental conditions. The noise levels along these roadway segments are presented in **Table IV.H-6 Predicted Existing Vehicular Traffic Noise Levels**.

As shown in Table IV.J-6, the ambient noise environment in the Project Site vicinity can be characterized by 24-hour CNEL levels attributable to existing traffic on local roadways. The calculated CNEL (at a distance of 25 feet to 55 feet from the roadway centerline to receptor locations depending on the roadway segment) from actual existing traffic volumes on the analyzed roadway segments ranged from 64.9 dBA to 70.9 dBA for residential and commercial areas.

**TABLE IV.J-6
PREDICTED EXISTING VEHICULAR TRAFFIC NOISE LEVELS**

Roadway Segment	Existing Land Uses Located Along Roadway Segment	dBA CNEL^a	Land Use Compatibility (Levels Defined at the Bottom of the Table)
11th Street			
Between Figueroa Street and Flower Street	Commercial	65.8	A
Between Flower Street and Hope Street	Commercial	65.0	A
Between Hope Street and Grand Avenue	Residential/Commercial	65.2	C
Between Grand Avenue and Olive Street	Residential/Commercial	65.6	C
Between Olive Street and Hill Street	Commercial	64.9	A
Between Hill Street and Broadway	Residential/Commercial	65.2	C
Between Broadway and Main Street	Commercial	65.6	A
Between Main Street and Los Angeles Street	Commercial	65.5	A
Olympic Boulevard			
Between Figueroa Street and Flower Street	Residential/Commercial	70.4	N/C
Between Flower Street and Hope Street	Residential/Commercial	70.3	N/C
Between Hope Street and Grand Avenue	Residential/Commercial	70.9	N/C
Between Grand Avenue and Olive Street	Residential/Commercial	70.6	N/C

³⁵ The noise prediction model which was developed based on calculation methodologies provided in the California Department of Transportation (Caltrans) Technical Noise Supplement (TeNS) document and traffic data provided in the project Transportation Study provided in Appendix N to this Draft EIR. This methodology, considered an industry standard, allows for the definition of roadway configurations, barrier information (if any), and receiver locations.

³⁶ The Mobility Group, 1045 Olive Project Transportation Study, 2019. Provided in Appendix N of this Draft EIR.

Roadway Segment	Existing Land Uses Located Along Roadway Segment	dBA CNEL^a	Land Use Compatibility (Levels Defined at the Bottom of the Table)
Between Olive Street and Hill Street	Residential/Commercial	70.2	N/C
Between Hill Street and Broadway	Commercial	70.1	C
Between Broadway and Main Street	Residential/Commercial	69.4	C
Between Main Street and Los Angeles Street	Commercial	69.0	C
Olive Street			
Between 8th Street and 9th Street	Residential/Commercial	68.4	C
Between 9th Street and Olympic Boulevard	Residential/Commercial	67.6	C
Between Olympic Boulevard and 11 th Street	Residential/Commercial	67.2	C
Between 11 th Street 12th Street	Commercial	68.5	C
Between 12 th Street and Pico Boulevard	Residential/Commercial	68.7	C
Between Pico Boulevard and Venice Boulevard	Commercial	69.8	C
Between Venice Boulevard and 17 th Street	Commercial	69.8	C
Between 17 th Street and 18 th Street	Commercial	70.0	C
Grand Avenue			
Between 8 th Street and 9 th Street	Residential/Commercial	69.2	C
Between 9 th Street and Olympic Boulevard	Residential/Commercial	68.6	C
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.1	C
Between 11 th Street and Pico Boulevard	Residential/Commercial	69.6	C
Between Pico Boulevard and Venice Boulevard	Residential/Hospital/ Commercial	67.7	C
Between Venice Boulevard and 17 th Street	Residential/Commercial	67.3	C
Between 17 th Street and 18 th Street	Commercial	65.7	A
Pico Boulevard			
Between LA Live Way and Figueroa Street	Commercial	69.9	C
Between Figueroa Street and Grand Avenue	Residential/Commercial	69.6	C
Between Grand Avenue and Olive Street	Residential/Commercial	67.7	C
Between Olive Street and Hill Street	Residential/Commercial	67.0	C
8th Street			
Between Grand Avenue and Olive Street	Residential/Commercial	68.5	C
9th Street			
Between Grand Avenue and Olive Street	Residential/Commercial	68.7	C
Venice Boulevard			
Between Grand Avenue and Olive Street	Residential/Commercial	66.9	C
17th Street			
Between Grand Avenue and Olive Street	Commercial	68.3	C
18th Street			
Between Grand Avenue and Olive Street	Commercial	70.8	C
Los Angeles Street			
Between 11 th Street and Olympic Boulevard	Commercial	69.7	C
North of Olympic Boulevard	Commercial	69.9	C

Roadway Segment	Existing Land Uses Located Along Roadway Segment	dBA CNEL ^a	Land Use Compatibility (Levels Defined at the Bottom of the Table)
Hill Street			
Between Olympic Boulevard and 11 th Street	Commercial/Educational	69.1	C
Between 11 th Street and Pico Boulevard	Residential/Commercial/Educational	68.8	C
Figueroa Street			
Between Olympic Boulevard and 11 th Street	Commercial/Hotel	66.1	C
Between 11 th Street and Pico Boulevard	Commercial	66.4	A
Flower Street			
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.9	C
Hope Street			
Between Olympic Boulevard and 11 th Street	Residential/Commercial/Educational	67.6	C
Broadway Street			
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.3	C
Main Street			
Between Olympic Boulevard and 11 th Street	Residential/Commercial	68.3	C

^a See Table IV.J-4. As discussed therein:

A = Normally Acceptable: Specified land use is satisfactory, based upon the assumption buildings involved are conventional construction, without any special noise insulation.

C = Conditionally Acceptable: New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will suffice.

N – Normally Unacceptable: New construction or development generally should be discouraged. A detailed analysis of the noise reduction requirements must be made and noise insulation features included in the design of a project.

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

SOURCE: ESA, September 2018.

To establish the noise prediction model's accuracy, a traffic model calibration test was performed between 8 A.M. and 10 A.M. on Wednesday, January 31, 2018. The road segments included in the calibration tests were 11th Street, between Hope Street and Grand Avenue, Hope Street, between Olympic Boulevard and 11th Street, and Olympic Boulevard, between Hope St and Grand Avenue. In these noted locations, 15-minute noise recordings were made while logging actual traffic volumes and auto fleet mix (i.e., standard automobile, medium duty truck, or heavy duty truck). The traffic counts were entered into the noise model along with the observed speed, lane configuration, and distance to the roadway to calculate the traffic noise levels. The results of the traffic noise model calibration are provided in **Table IV.J-7, Traffic Noise Model Calibration Results**. As indicated, the noise model results are within 1 dBA of the measured noise levels, which

is within the industry standard tolerance of the noise prediction model.³⁷ Therefore, the Project-specific traffic noise prediction model is considered accurate and reflective of the Project Site's physical setting.

**TABLE IV.J-7
TRAFFIC NOISE MODEL CALIBRATION RESULTS**

Road Segment/ Noise Measurements Locations	Traffic Counts during noise readings, 15 minutes			Measured Traffic Noise Levels, L_{eq} (dBA)	Project Traffic Noise Model Predicted Noise Levels, L_{eq} (dBA)	Difference between Predicted and Measured Levels, dBA
	Autos	Medium Trucks ^a	Heavy Trucks ^b			
11 th Street	1966	45	24	72.4	71.9	0.5
Hope Street	769	21	9	67.9	67.2	0.7
Olympic Boulevard	3894	87	43	74.3	73.5	0.8

^a Medium Truck – 2 axle trucks based on field observations.

^b Heavy Truck – 3 or more axle trucks and buses based on field observations.

SOURCE: ESA, July 2018.

(4) Groundborne Vibration and Groundborne Noise Sensitive Receptor Locations

As discussed above, the FTA *Transit Noise and Vibration Impact Assessment Manual* provides vibration structure damage criteria for the following four building categories: (I) reinforced-concrete, steel, or timber (no plaster); (II) engineered concrete and masonry (no plaster); (III) non-engineered timber and masonry buildings; and (IV) Buildings extremely susceptible to vibration damage.³⁸ The FTA *Transit Noise and Vibration Impact Assessment Manual* also provides vibration human annoyance criteria for the following three land-use categories: (1) high sensitivity; (2) residential; and (3) institutional.³⁹ The multi-family residential buildings located to the north (R1), northwest (represented by R1), west (R2 and R3), and southwest (R8) of the Project Site would be subjected to potential Project-related groundborne vibration structural damage and Project-related groundborne noise human annoyance impacts because those residential uses are located within groundborne vibration and noise analysis screening distance by FTA.⁴⁰

³⁷ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

³⁸ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 7-5, page 186, 2018.

³⁹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 6-3, page 126, 2018.

⁴⁰ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 6-8, page 136, 2018.

(5) Existing Groundborne Vibration/Noise Levels

Aside from periodic construction work occurring throughout the City, field observations noted that other existing sources of groundborne vibration in the Project Site vicinity are limited to heavy-duty vehicular travel (buses, etc.) on local roadways. Rubber-tired vehicles traveling at a distance of 50 feet from a receptor typically generate groundborne noise levels of approximately 63 VdB (groundborne vibration velocities of approximately 0.006 inches per second PPV).⁴¹ As stated earlier, groundborne noise levels would generally be 35 to 37 decibels lower than the velocity level.⁴²

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to noise and groundborne vibration and noise, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide were used where applicable and relevant to assist in analyzing the Appendix G questions. Further, the City has determined to use the FTA vibration criteria for determining reference levels for the evaluation of groundborne vibration and noise impacts.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to noise and vibration if it would result in:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;***
- b) Generation of excessive groundborne vibration or groundborne noise levels;***
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.***

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate noise.

(1) Construction

The Thresholds Guide states that a project would normally have a significant impact on noise levels from construction if:

⁴¹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Figure 6-4, page 137, 2018.

⁴² Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 6-3, page 126, 2018.

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise-sensitive use;
- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use; or
- Construction activities would exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or at any time on Sunday.

(2) Operation

The Thresholds Guide states that a project would normally have a significant impact on noise levels from project operations if:

- The project causes the ambient noise level measured at the property line of affected uses to increase 3 dBA in CNEL to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase (refer to Table IV.J-4 for a description of the “normally unacceptable” and “clearly unacceptable” categories).

(3) Groundborne Vibration and Noise

The Thresholds Guide does not include significance thresholds to assess groundborne vibration and noise impacts during construction or operation. Thus, for this Project, the City has determined to use the FTA’s criteria, stated below, to evaluate potential groundborne vibration and noise impacts related to Project construction and operation.

- Potential Building Damage – Project construction activities cause groundborne vibration levels to exceed 0.5 inches per second PPV at the nearest off-site reinforced concrete, steel, or timber buildings.⁴³
- Potential Human Annoyance – Project construction and operational activities cause groundborne vibration and groundborne noise levels to exceed 72 VdB at nearby residential uses.⁴⁴

b) Methodology

(1) On-Site Construction Noise

On-site construction noise impacts at sensitive receptor locations were projected by determining the noise levels expected to be generated by the different types of construction activities anticipated, including the construction-related noise levels

⁴³ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 7-5, page 186, 2018.

⁴⁴ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 6-3, page 126, 2018.

produced by the construction equipment. More specifically, the following steps were undertaken to assess construction-period noise impacts.

- Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table IV.J-5);
- Typical noise levels for each type of construction equipment expected to be used based on information provided by the Project Applicant were obtained from the FHWA roadway construction noise model (RCNM);
- Distances between construction site locations (noise sources) within the Project Site and surrounding sensitive receptors were measured using Project architectural drawings, Google Earth, and site plans;
- The construction noise levels were then calculated for each construction phase using the FHWA RCNM, conservatively, in terms of hourly L_{eq} , for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance, assuming that all of the equipment for each construction phase would be in use concurrently and that the loudest equipment would be located at the edge of the Project Site closest to the sensitive receptor locations; and
- Construction noise levels were then compared to the construction noise significance thresholds identified above.

(2) Off-Site Roadway Noise (Construction and Operation)

Roadway noise levels were projected using the FHWA's TNM and the Caltrans Technical Noise Supplement (TeNS) method based on the roadway traffic volumes provided in the Transportation Study for the Project.⁴⁵ This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise levels attributable to Project development were calculated and compared to baseline noise levels that would occur under the "without Project" condition for the Existing with Project and Future with Project Conditions. For the construction-related traffic noise analysis, it was assumed that trucks traveling to and from the Project Site would travel along routes that connect to the Interstate 10 Freeway, which coincide with travel along the haul route(s) requested by the Applicant. Therefore, construction-related traffic noise impacts were evaluated along the haul route(s) approved by the City. The truck route for outbound trucks would be a left turn from the Project Site heading north on S. Olive Street, a right turn onto W. Olympic Boulevard, a right turn onto Hill Street, a left turn onto W. 18th Street, and merging onto the Interstate 10 freeway. The truck route for inbound trucks would be exiting the Interstate 10 freeway onto W. 17th Street and a right turn onto S. Olive Street

⁴⁵ The Mobility Group, 1045 Olive Project Transportation Study, 2019.

towards the Project Site. The construction-related traffic noise analysis also included construction worker vehicle trips.

(3) Stationary Point-Source Noise (Operation)

Stationary point-source noise levels from the Project Site were evaluated by identifying the noise levels generated by the Project's outdoor stationary noise sources such as rooftop mechanical equipment, parking structure automobile operations, and loading/refuse collection area activity, calculating the hourly L_{eq} noise level from each noise source at sensitive receptor property lines, and comparing such noise levels to existing ambient noise levels. More specifically, the following steps were undertaken to calculate outdoor stationary point-source noise impacts:

- Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table IV.J-5);
- Typical noise levels generated by each type of stationary point-source noise generator, including mechanical equipment, open spaces, loading dock, and parking structure operations, were obtained based on measured noise levels for similar equipment/activities, from noise levels published in environmental noise assessment documents for land use development projects or scientific journals, or from noise levels from equipment manufacturer specifications;
- Distances between stationary point-source noise generators and surrounding sensitive receptor locations were measured using Project architectural drawings, Google Earth, and site plans; and
- Stationary point-source noise levels were then calculated for each sensitive receptor location based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance.
- Noise levels were then compared to the stationary point-source noise significance thresholds identified above.

Parking-related noise levels were estimated by using the methodology recommended by the FTA for the general assessment of stationary transit noise sources. Using this methodology, the peak hourly noise level that would be generated by the on-site parking levels was estimated using the following FTA equation for a parking garage:⁴⁶

$$L_{eq}(h) = SEL_{ref} + 10\log(NA/1000) - 35.6, \text{ where:}$$

- $L_{eq}(h)$ = hourly L_{eq} noise level at 50 feet;
- SEL_{ref} = 92 dBA at 50 feet, 1,000 cars in peak activity hour at the center of a parking garage;

⁴⁶ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 4-13 and Table 4-14, pages 45 and 47, 2018.

- NA = number of automobiles per hour.
- Noise level increases, if any, were then compared to the stationary point-source noise significance thresholds identified above.
- For outdoor mechanical equipment, it was assumed that the Project would comply with the requirements of LAMC Section 112.02 to ensure that the maximum noise generated by any and all outdoor mechanical equipment would not exceed the ambient noise level by more than 5 dBA, which falls within the significance threshold identified above.

(4) Composite Noise (Operations)

The combined noise level from all operational noise sources was estimated by logarithmically adding together the noise levels from all of the operational noise sources at the maximally impacted noise-sensitive receptor locations, assuming the simultaneous contribution of noise from each source. As discussed previously, the dBA scale is based on logarithms, where a doubling of sound energy corresponds to a 3 dBA increase (e.g., if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA). The noise sources comprising the composite noise level include off-site roadway noise and on-site stationary point-source noise, as listed above. Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to the vibration of floors and walls⁴⁷ and is thus evaluated in conjunction with groundborne vibration as discussed in the next subsection below.

(5) Groundborne Vibration and Noise (Construction and Operation)

Groundborne vibration and noise impacts were evaluated for potential building damage and human annoyance impacts by identifying the Project's potential vibration sources, estimating the distance between the Project's vibration sources and the nearest structure and vibration annoyance receptor locations, estimating the maximum vibration and noise levels at the distances to the nearest structure and vibration annoyance receptor locations using the vibration data from the FTA manual, and making a significance determination based on the significance thresholds described above.

c) Project Characteristics

The following Project Design Features would be incorporated into the Project to eliminate potential sources of noise and groundborne vibration and noise:

NOISE-PDF-1: The Project will not use impact pile drivers and will not allow blasting during construction activities.

⁴⁷ Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Section 5.5, 2018.

NOISE-PDF-2: Signs will be posted at Project truck loading areas prohibiting idling for more than 5 consecutive minutes.

NOISE-PDF-3: Amplified sound in outdoor open space areas on the site shall be prohibited.

In addition, Section IV.A, *Aesthetics*, of this Draft EIR includes a Project Design Feature to provide noise shielding of the noise from the Project's parking structure, as well as to reduce potential aesthetics impacts:

AES-PDF-2: Parking Shielding (refer to Section IV.A, *Aesthetics*, of this Draft EIR for additional details). This Project Design Feature requires that the podium parking be shielded from adjacent areas with minimum 36-inch high baffling panels behind architectural screen meshing for aesthetic character and for light and sound attenuation.

d) Analysis of Project Impacts

Threshold a) *Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? Temporary: Significant and Unavoidable Impact after Mitigation. Permanent: Less than Significant Impact.*

(1) Construction

(a) On-Site Construction Noise

Construction of the Project would require the use of heavy equipment during demolition, grading, and excavation activities at the Project Site. During each stage of development, a variety of equipment would be used. As such, construction activity noise levels on and near the Project Site would fluctuate depending on the type, number, and duration of use of various pieces of construction equipment operating at a given time.

Construction typically involves a number of different activities. The following construction activities would occur for the Project: (1) demolition; (2) site preparation; (3) grading/excavation; (4) drainage/utilities/trenching; (5) foundations; (6) building construction; (7) paving; and (8) architectural coating. Each stage involves the use of different kinds of construction equipment and, therefore, has its own distinct noise characteristics. Demolition would involve the use of an air compressor, jackhammer, loader, sweeper/scrubber, and concrete saw. Site preparation would involve the use of a concrete saw and excavator. Grading/excavation would involve the use of a backhoe, bore/drill rig, excavators, loader, and sweeper/scrubber. Drainage/utilities/trenching would involve the use of a backhoe and sweeper/scrubber. Foundations would involve the use of a backhoe, crane, forklift, and sweeper/scrubber. Building construction would

involve the use of cranes, forklifts, and a sweeper/scrubber. Paving would involve the use of a backhoe and paver. Architectural coating would involve the use of an air compressor and forklift. The Project would be constructed using typical construction techniques; no blasting or impact pile driving would be used, pursuant to NOISE-PDF-1. As discussed in Chapter II, *Project Description*, the Project construction would take place in a single phase anticipated to begin in 2019 with Project buildout projected for 2023.

Individual pieces of construction equipment expected to be used during Project construction could produce maximum noise levels of 75 dBA L_{max} to 90 dBA L_{max} at a reference distance of 50 feet from the noise source, as shown in **Table IV.J-8, *Project Construction Equipment and Associated Noise Levels***. These maximum noise levels would occur when the equipment is operating at full power. Each piece of equipment would not be operating at full power consistently throughout the duration of a given construction phase, however; the estimated usage factor for each piece of equipment is also shown in Table IV.J-8 and represents the percentage of the time during a given construction phase that each piece of equipment is expected to be operating. These usage factors are based on FHWA's RCNM User's Guide.⁴⁸

During Project construction, the noise measurement locations representative of the closest off-site noise sensitive receptors that would be exposed to the Project's increased noise levels are listed below; the distances shown represent the closest construction site location on the Project Site to the property line of the off-site receptors:

- R1: represents the seven-story mixed-use residential development located immediately to the north of the Project Site.
- R2: represents the 20-story mixed-use residential high-rise building located immediately west of the Project Site.
- R3: represents the multi-family residential uses located approximately 280 feet to the west of the Project Site.
- R4: represents the multi-family residential uses located approximately 450 feet northwest of the Project Site.
- R5: represents the multi-family residential uses located approximately 530 feet to the north of the Project Site.
- R6: represents the multi-family residential uses located approximately 450 feet to the northeast of the Project Site.
- R7: represents future mixed use residential development to be located approximately 480 feet to the southeast of the Project Site.
- R8: represents future mixed use residential development to be located approximately 300 feet to the southwest of the Project Site.

⁴⁸ Federal Highway Administration. FHWA Roadway Construction Noise Model User's Guide, 2006, <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/I09.pdf>. Accessed July 2018.

**TABLE IV.J-8
PROJECT CONSTRUCTION EQUIPMENT AND ASSOCIATED NOISE LEVELS**

Type of Equipment	Estimated Usage Factor	Reference Noise Level at 50 Feet, L_{max}
Air Compressor	40%	78
Backhoe	40%	80
Bore/Drill Rig	20%	84
Concrete Saw	20%	90
Crane	16%	81
Excavator	40%	81
Forklift	10%	75
Jackhammer	20%	89
Loader	40%	79
Paver	50%	77
Sweeper/Scrubber	10%	82

SOURCE: FTA, Transit Noise and Vibration Impact Assessment Manual, 2018.

Over the course of a construction day, the highest noise levels would be generated when multiple pieces of construction equipment are operating concurrently. The estimated noise levels at the off-site sensitive receptor locations were calculated using the FHWA's RCNM, and were based on a maximum concurrent operation of equipment, which is considered to be a worst-case evaluation because Project construction would typically use less overall equipment on a daily basis, and as such would generate lower noise levels.

Table IV.J-9, *Estimate of Unmitigated Construction Noise Levels (L_{eq}) at Off-Site Sensitive Receptor Locations*, shows the estimated construction noise levels expected to occur at the nearest off-site sensitive uses during a peak day of construction activity at the Project Site. Certain types of construction activity would occur on the Project Site very close or adjacent to the Project Site boundary. These activities would include demolition, site preparation, grading/excavation, and paving in areas where parking entrances or internal roadways would be located near the Project Site boundary. Building construction and related activities such as infrastructure, foundation, and architectural coating, would generally not occur very close or adjacent to the Project Site boundary, but would occur where the Project buildings are proposed to be located. Figure II-3 in Chapter II, *Project Description*, provides a conceptual site plan that shows the locations of Project Site improvements relative to the Project Site boundary. The construction noise analysis takes into account the distances from the different construction activities on the Project Site to the nearest off-site noise-sensitive receptor property lines.

TABLE IV.J-9
ESTIMATE OF UNMITIGATED CONSTRUCTION NOISE LEVELS (L_{EQ}) AT OFF-SITE SENSITIVE RECEPTOR LOCATIONS

Representative Ambient Measurement Location	Construction Phases	Nearest Distance from Construction Activity to Property Line of Sensitive Receptor (ft.)	Reference Construction Noise Level at Property Line of Off-Site Sensitive Location (dBA L _{eq})	Significance Threshold ^a	Exceed Significance Threshold Before Mitigation?
R1 (mixed-use residential north of the Project Site)	Demolition	5	89	74	Yes
	Site Preparation	5	98		Yes
	Grading/Excavation	5	91		Yes
	Drainage/Utilities/Trenching	20	85		Yes
	Foundation/Concrete Pour	20	79		Yes
	Building Construction	20	79		Yes
	Paving	5	91		Yes
	Architectural Coating	20	77		Yes
R2 (mixed-use residential west of the Project Site)	Demolition	20	83	75	Yes
	Site Preparation	20	91		Yes
	Grading/Excavation	20	84		Yes
	Drainage/Utilities/Trenching	35	85		Yes
	Foundation/Concrete Pour	35	79		Yes
	Building Construction	35	79		Yes
	Paving	20	84		Yes
	Architectural Coating	35	77		Yes
R3 (multi-family residential west of the Project Site)	Demolition	280	63	77	No
	Site Preparation	280	63		No
	Grading/Excavation	280	61		No
	Drainage/Utilities/Trenching	295	62		No
	Foundation/Concrete Pour	295	57		No
	Building Construction	295	57		No
	Paving	280	57		No
	Architectural Coating	295	54		No
R4 (multi-family residential northwest of the Project Site)	Demolition	450	55	73	No
	Site Preparation	450	54		No
	Grading/Excavation	450	52		No
	Drainage/Utilities/Trenching	465	53		No
	Foundation/Concrete Pour	465	49		No
	Building Construction	465	48		No
	Paving	450	48		No
	Architectural Coating	465	45		No
R5 (multi-family residential north of the Project Site)	Demolition	530	49	79	No
	Site Preparation	530	48		No
	Grading/Excavation	530	46		No

Representative Ambient Measurement Location	Construction Phases	Nearest Distance from Construction Activity to Property Line of Sensitive Receptor (ft.)	Reference Construction Noise Level at Property Line of Off-Site Sensitive Location (dBA L _{eq})	Significance Threshold ^a	Exceed Significance Threshold Before Mitigation?
	Drainage/Utilities/Trenching	545	47	84	No
	Foundation/Concrete Pour	545	42		No
	Building Construction	545	42		No
	Paving	530	42		No
	Architectural Coating	545	39		No
R6 (multi-family residential northeast of the Project Site)	Demolition	450	55	84	No
	Site Preparation	450	54		No
	Grading/Excavation	450	52		No
	Drainage/Utilities/Trenching	465	53		No
	Foundation/Concrete Pour	465	49		No
	Building Construction	465	48		No
	Paving	450	48		No
	Architectural Coating	465	45		No
R7 (future mixed-use development southeast of the Project Site)	Demolition	480	49	77	No
	Site Preparation	480	49		No
	Grading/Excavation	480	47		No
	Drainage/Utilities/Trenching	495	47		No
	Foundation/Concrete Pour	496	43		No
	Building Construction	495	42		No
	Paving	480	43		No
	Architectural Coating	495	39		No
R8 (future mixed-use development southwest of the Project Site)	Demolition	300	57	71	No
	Site Preparation	300	58		No
	Grading/Excavation	300	55		No
	Drainage/Utilities/Trenching	315	56		No
	Foundation/Concrete Pour	315	52		No
	Building Construction	315	51		No
	Paving	300	52		No
	Architectural Coating	315	48		No

^a The significance criteria, per the City's Threshold Guide, is the daytime ambient noise level as shown in Table IV.J-3 plus 5 dBA.

^b Detailed calculations are provided in Appendix K of this Draft EIR.

SOURCE: ESA, 2018.

The maximum unmitigated construction noise levels would be generated when the specified construction activity would be occurring at the location closest to the off-site noise-sensitive receptor property lines. As shown in Table IV.J-9, unmitigated construction noise levels were estimated to reach a maximum of 98 dBA L_{eq} during site

preparation at the off-site noise sensitive receptor property lines to the north (R1) of the Project Site and of 91 dBA L_{eq} during site preparation at the off-site residences to the west (R2) of the Project Site. These maximum unmitigated construction noise levels would be generated when site preparation activities would be ongoing very close or adjacent to the Project Site's northern and western boundaries. These unmitigated construction noise levels would exceed the 74 dBA L_{eq} significance threshold at receptor location R1 and the 75 dBA L_{eq} significance threshold at receptor location R2 (daytime noise levels shown in Table IV.J-3, plus 5 dBA). As site preparation activities, as well as other construction activities, are completed near the Project Site boundary, and construction activities move toward the interior of the Project Site farther from the Project Site boundary, the construction noise levels at these noise-sensitive residential property lines would decrease accordingly. As shown in Table IV.J-9, the maximum unmitigated construction noise levels generated by Project construction would not exceed the threshold levels at any of the other noise-sensitive receptor locations.

Construction of the Project would generate unmitigated construction noise levels that would temporarily exceed the applicable significance thresholds at off-site noise-sensitive receptor property lines. **Therefore, Project construction would result in the exposure of persons to or generation of noise levels in excess of the City's noise standards, before mitigation, and construction noise impacts would be potentially significant.** Mitigation measures NOISE-MM-1, NOISE-MM-2, and NOISE-MM-3, identified below, would require the placement of noise barriers between active construction sites and off-site uses, and would further require the use of proper construction equipment noise shielding and muffling devices during construction activities. Mitigation measure NOISE-MM-6 would provide the public with contact information to report violations to the City. **These mitigation measures would reduce construction noise generated by Project construction and provide the public with the information needed to contact the City and report violations, although residual temporary significant construction noise impacts would remain after mitigation.**

(b) Off-Site Construction Activity and Related Noise

Delivery, haul truck, and worker vehicle trips would occur throughout the construction period. The Project's maximum off-site construction noise levels would be generated during the construction period with the greatest number of truck trips, which would be during the building foundations work. The building foundations work, which would comprise the mat pour and occur on a single weekend, would require a total of approximately 608 trucks (608 inbound and 608 outbound trips), and 175 workers (175 inbound and 175 outbound trips) per day. Approximately 38 trucks (38 inbound and 38 outbound trips) per hour would be needed during the building foundations work. The trucks traveling to and from the Project Site would be anticipated to utilize the Interstate 10 freeway to delivery concrete to the Project Site. Thus, the route for outbound trucks would be a left turn from the Project Site heading north on S. Olive Street, a right turn onto W. Olympic Boulevard, a right turn onto Hill Street, a left turn onto W. 18th Street, and merging onto the Interstate 10 freeway. The route for inbound trucks would be exiting

the Interstate 10 freeway onto W. 17th Street and a right turn onto S. Olive Street towards the Project Site. Construction worker vehicle trips would be dispersed along various roadways and would contribute a very small number of vehicle trips when compared to existing traffic volumes on these same roadways and compared to the truck trips along the truck route. Construction worker vehicles would need to travel on Olive Street to access the Project Site, which would be the only entrance to the Project Site during construction. Therefore, as a conservative analysis, all worker vehicle trips were assumed to travel on Olive Street. Construction workers would travel on other streets as they commute to and from their homes using a variety of different commuting routes to and from the Project Site. Since the Project's maximum off-site construction noise levels would be generated during the construction period with the greatest number of truck trips, in order to provide a conservative worst-case off-site construction traffic noise analysis, it is assumed all construction worker vehicle trips would result in travel on the same roadway segments listed above as the Project's construction trucks. The combined traffic noise levels from the Project's construction trucks and worker vehicles along the same roadway segments would generate the maximum off-site construction noise levels from the Project. Therefore, in addition to the Project's total of approximately 608 trucks (608 inbound and 608 outbound trips), which would occur during the building foundations work, the traffic noise from the Project's 175 workers (175 inbound and 175 outbound trips) per day during the building foundations work is included along the roadway segments listed above.

As shown in **Table IV.J-10, *Estimate Maximum Off-Site Construction Traffic Noise***, the Project's truck trips and worker trips would generate noise levels of approximately up to 67.0 dBA CNEL along Olive Street, approximately up to 67.0 dBA CNEL along Olympic Boulevard, approximately up to 66.0 dBA CNEL along Hill Street, approximately up to 68.8 dBA CNEL along 18th Street, and approximately up to 68.0 dBA CNEL along 17th Street.

TABLE IV.J-10
ESTIMATE MAXIMUM OFF-SITE CONSTRUCTION TRAFFIC NOISE LEVELS

Roadway Segment	Calculated Traffic Noise Levels On Roadway dBA CNEL					
	Existing (A)	Construction Traffic (B)	Existing Plus Project Noise Level (C)	Construction Traffic Increment	Significance Threshold	Exceed Threshold?
Olive Street						
Between Olympic Boulevard and 11 th Street	67.2	66.0	69.7	2.5	5	No
Between 11 th Street and 12 th Street	68.5	66.6	70.7	2.2	5	No
Between 12 th Street and Pico Boulevard	68.7	67.0	70.9	2.2	5	No

Roadway Segment	Calculated Traffic Noise Levels On Roadway dBA CNEL					
	Existing (A)	Construction Traffic (B)	Existing Plus Project Noise Level (C)	Construction Traffic Increment	Significance Threshold	Exceed Threshold?
Between Pico Boulevard and Venice Boulevard	69.8	67.0	71.6	1.8	5	No
Between Venice Boulevard and 17 th Street	69.8	67.0	71.6	1.8	5	No
Between 17 th Street and 18 th Street	70.0	67.0	71.8	1.8	5	No
Olympic Boulevard						
Between Olive Street and Hill Street	70.2	67.0	71.9	1.7	5	No
17th Street						
Between Grand Avenue and Olive Street	68.3	68.0	71.9	2.9	5	No
18th Street						
Between Grand Avenue and Olive Street	70.8	68.8	72.9	2.1	5	No
Hill Street						
Between Olympic Boulevard and 11 th Street	69.1	66.0	70.8	1.7	5	No
Between 11 th Street and Pico Boulevard	68.8	66.6	70.8	2.0	5	No

SOURCE: ESA, 2019.

As shown in Table IV.J-10, construction traffic noise levels generated by construction-related traffic would increase existing traffic noise levels by up to 2.9 dBA along 17th Street. The noise level increase along other street segments, including Olive Street, would be less than 2.9 dBA. These noise level increases would be below the applicable significance threshold of 5 dBA. Construction traffic noise levels generated by construction-related traffic during all other phases of Project construction would be less than the value shown in Table IV.J-10 primarily because there would be fewer trucks on an hourly or daily basis. **Accordingly, off-site Project construction activities and related construction-related traffic would not result in the exposure of persons to or generation of noise levels in excess of significance thresholds. Impacts would be less than significant.**

(2) Operational Noise

(a) Impacts from On-Site Stationary Noise Sources

(i) On-Site Open Space Noise

A number of open space and recreational amenities are proposed on the Project Site. Amplified sound would not be allowed in outdoor areas.⁴⁹ The top of the 8th and 10th Floor Podium Terraces would contain residential amenities such as lounge areas and event areas. Under a conservative scenario, there could be up to approximately 200 visitors to the 8th and 10th Floor Podium Terraces together at one time on a peak weekend day.⁵⁰ The noise level from human conversation is approximately 55 dBA at a distance of 3 feet.⁵¹ Assuming 100 visitors are talking simultaneously in conversations, the continuous noise level would be up to 75 dBA L_{eq} at 3 feet. The top level of the noise-sensitive receptor location R1 is located approximately 30 feet from the 8th and 10th Floor Podium Terraces. Based on a source noise level of 75 dBA L_{eq} at a reference distance of 3 feet, and accounting for distance attenuation (6 dBA per doubling of distance, a minimum of 20 dBA attenuation or more for 30 feet distance to the sensitive receptor location R1), the 8th and 10th Floor Podium Terraces-related noise would be 55 dBA L_{eq} , which would increase the ambient noise level of 69 dBA L_{eq} by 0.2 dBA. This increase would not exceed the significance thresholds of a 3 or 5 dBA increase.⁵² In addition, the 8th and 10th Floor Podium Terraces-related noise would be 59 dBA L_{eq} at noise-sensitive receptor location R2 (6 dBA per doubling of distance, a minimum of 16 dBA attenuation or more for 20 feet distance to the sensitive receptor location R2), which would increase the ambient noise level of 69 dBA L_{eq} by 0.4 dBA. Therefore, the 8th and 10th Floor Podium Terraces-related activities would not result in a substantial increase in ambient noise levels.

The 53rd to 55th floor levels would contain mid-tower amenity spaces with such facilities as a pool and fitness center. Under a conservative scenario, there could be up to approximately 225 visitors to the mid-tower amenity spaces at one time on a peak weekend day.⁵³ The noise level from human conversation is approximately 55 dBA at a distance of 3 feet.⁵⁴ Assuming 112 visitors are talking simultaneously in conversations, the continuous noise level would be up to 75.5 dBA L_{eq} at 3 feet. The mid-tower amenity spaces would be located approximately 500 feet above the top of the multi-family residential uses at sensitive receptor location R1. Based on a source noise level of 75.5 dBA L_{eq} at a reference distance of 3 feet, and accounting for distance attenuation (6 dBA

⁴⁹ As per NOISE-PDF-3, the applicant would not allow amplified sound in any outdoor open space areas.

⁵⁰ The maximum occupancy numbers were provided by the Project architect.

⁵¹ American Journal of Audiology Vol.7 21-25 October 1998. doi:10.1044/1059-0889(1998/012), <https://aja.pubs.asha.org/article.aspx?articleid=1773811>. Accessed July 2018.

⁵² The 5 dBA threshold applies because the noise level at sensitive receptor location R1 would remain within the Conditionally Acceptable category.

⁵³ The maximum occupancy numbers were provided by the Project architect.

⁵⁴ American Journal of Audiology Vol.7 21-25 October 1998. doi:10.1044/1059-0889(1998/012), <https://aja.pubs.asha.org/article.aspx?articleid=1773811>. Accessed July 2018.

per doubling of distance, a minimum of 44 dBA attenuation or more for 500 feet distance to the sensitive receptor location R1), the mid-tower amenity spaces-related noise would be 31 dBA L_{eq} , which would not increase the ambient noise level of 69 dBA L_{eq} . In addition, the mid-tower amenity spaces-related noise would be 38 dBA L_{eq} at noise sensitive receptor location R2 (6 dBA per doubling of distance, a minimum of 38 dBA attenuation or more for 230 feet distance to the sensitive receptor location R2), which would not increase the ambient noise level of 69 dBA L_{eq} . Since they would cause no changes in the ambient noise levels, the mid-tower amenity spaces-related activities would not result in a substantial increase in ambient noise levels.

The Tower Roof Terrace would include active and passive open space amenities, including roof deck, roof terraces, and BBQ tables. The Tower Roof Terrace would be located approximately 720 feet above the top of the multi-family residential uses at sensitive receptor location R1 and approximately 550 feet above the top of multi-family residential uses at sensitive receptor location R2. The activities on the Tower Roof Terrace would be similar to the activities in the mid-tower amenity spaces. As discussed above, mid-tower amenity spaces-related noise would not any change to the ambient noise levels at noise-sensitive receptor locations R1 and R2. Similarly, due to the distance of approximately 720 feet from the multi-family residential uses at sensitive receptor location R1 and approximately 500 feet from the multi-family residential uses at sensitive receptor location R2, which are approximately 230 feet farther away than the mid-tower amenity, the Tower Roof Terrace-related noise would not result in a substantial increase in ambient noise levels.

Therefore, the Project's potential on-site open space noise impacts would be less than significant and no mitigation measures are required.

(ii) *On-Site Fixed Mechanical Equipment Noise*

The operation of mechanical equipment typical of developments like the Project, such as air conditioners, fans, and related equipment, may generate audible noise levels. The Project's mechanical equipment would be located on rooftops or within buildings, and would be shielded from nearby land uses to attenuate the noise they would generate and avoid conflicts with adjacent uses. In addition, all mechanical equipment would be designed with appropriate noise control devices, such as sound attenuators, acoustics louvers, sound enclosures, and/or sound screen/parapet walls, to comply with the noise limitation requirements provided in Section 112.02 of the LAMC, which prohibits the noise from such equipment from causing an increase in the ambient noise level by more than five decibels. To meet this standard, the noise generated from the Project's fixed mechanical equipment must be at least 10 dBA below ambient noise levels, as noise levels lower than ambient conditions can contribute to the general ambient sound level. Therefore, the Project would install mechanical equipment so that it would generate noise levels below this threshold in compliance with applicable regulatory requirements. As discussed above, this can be accomplished through appropriate noise control devices, such as sound attenuators, acoustics louvers, sound enclosures, and/or sound

screen/parapet walls. Therefore, compliance with the City's code requirements would ensure that operation of the Project's fixed mechanical equipment would not exceed the City's thresholds of significance and that impacts would be less than significant. As such, no mitigation measures are required.

(iii) *Loading and Refuse Service Areas Noise*

Loading dock activities, such as truck movements/idling and loading/unloading operations, would generate noise levels that would have the potential to adversely impact adjacent land uses during long-term Project operations. An on-site loading and move-in/out service area would also be accessed from the alley near the center of the Project Site boundary. Delivery truck idling is restricted to no more than 5 consecutive minutes in the loading area pursuant to State regulation (Title 13 California Code of Regulations [CCR], Section 2485). Pursuant to NOISE-PDF-2, signs would be posted in delivery loading areas specifying this idling restriction. The loading area is proposed to be located at the center of the Project Site boundary on the ground level.

Based on a noise survey that was conducted by ESA at a loading dock facility, loading dock activity (namely idling semi-trucks and backup alarm beeps) would generate noise levels of approximately 70 dBA L_{eq} at a reference distance of 50 feet from the noisiest portion of the truck (i.e., to the side behind the cab and in line with the engine and exhaust stacks).⁵⁵ As shown in Figure II-3, the loading dock entrance would be located at the edge of the Project's property line facing the alley and approximately 50 feet from the northwest corner of the Project building. The nearest noise-sensitive uses to the west of the Project Site, represented by noise measurement locations R1 and R2 (multi-family residential uses), would each be located approximately 50 feet from the loading dock areas and be partially shielded by the Project structures. Based on a noise level source strength of 70 dBA at a reference distance of 50 feet, and accounting for barrier-insertion loss by Project structures (minimum 10 dBA insertion loss), loading dock noise would be approximately 60 dBA at these noise sensitive uses and therefore would increase the daytime average ambient noise level of 69 dBA L_{eq} by 0.5 dBA at sensitive receptor location R1 and the daytime average ambient noise level of 70 dBA L_{eq} by 0.4 dBA at sensitive receptor location R2. Because the loading area noise would not increase ambient noise levels at the noise sensitive receptor locations R1 and R2 by the applicable 5 dBA or 3 dBA threshold, respectively, impacts would be less than significant, and no mitigation measures are required.⁵⁶

Similar to the loading area, the refuse service areas would be located at the center of the Project Site boundary on the ground level. However, trash compactors would be located

⁵⁵ The loading dock facility noise measurements were conducted at a loading dock facility at a Walmart store using the Larson-Davis 820 Precision Integrated Sound Level Meter (SLM) in May 2003. The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of approximately five feet above the local grade. Measurement data are provided in Appendix K-5 of this Draft EIR.

⁵⁶ The 3 dBA threshold applies to sensitive receptor location R2 because, at 70 dBA without the Project, the addition of the 0.4 dBA, R2 is in the Normally Unacceptable category.

within an enclosed space with no openings directly toward the off-site noise sensitive receptor locations. Trash compactors would generate noise levels of approximately 66 dBA L_{eq} at a 50-foot distance.⁵⁷ According to the FHWA, walls can result in a noise transmission loss ranging from 18 dBA for thin steel (24 gauge) up to 40 dBA for dense concrete.⁵⁸ The nearest noise sensitive uses to the west of the Project Site, represented by measurement locations R1 and R2 (multi-family residential uses) would each be located approximately 50 feet from the trash compactors. Conservatively assuming the lowest level of transmission loss based on the FHWA data (i.e., 18 dBA), the noise from the trash compactors would be approximately 48 dBA or less at 50 feet, which would not increase the daytime average ambient noise levels of 69 dBA L_{eq} at sensitive receptor location R1 and 70 dBA L_{eq} at sensitive receptor location R2, when combined with the ambient noise levels and noise from the refuse service areas. Therefore, trash compactor-related noise would be negligible at off-site sensitive receptor locations. Refuse service-related activities would be limited to truck movements/idling and to loading trash cans. Refuse service area-related activities would also be accessed from the alley near the center of the Project Site boundary. Refuse collection trucks would generate noise levels of approximately 70 dBA L_{eq} at a 50-foot distance.⁵⁹ The nearest noise sensitive uses to the west of the Project Site, represented by measurement locations R1 and R2 (multi-family residential uses) would each be located approximately 50 feet from the loading dock areas and be partially shielded by the Project structures. Based on a noise level source strength of 70 dBA at a reference distance of 50 feet, and accounting for barrier-insertion loss by Project structures (minimum 10 dBA insertion loss), refuse service area noise would be approximately 60 dBA at these noise sensitive uses, and therefore would increase the daytime average ambient noise level of 69 dBA L_{eq} by 0.5 dBA at sensitive receptor location R1 and the daytime average ambient noise level of 70 dBA L_{eq} by 0.4 dBA at sensitive receptor location R2. Because the refuse service area noise would not increase ambient noise levels at the noise sensitive receptor locations R1 and R2 by the applicable 5 dBA or 3 dBA threshold, respectively, impacts would be less than significant, and no mitigation measures are required.⁶⁰

(iv) On-Site Parking Area Noise

Vehicle parking would be located within six subterranean levels and eight levels above grade. The Project would provide up to 891 parking spaces. Vehicle access (ingress/egress) would be provided from one entrance along Olive Street, near the northern property line, and from two entrances on the alley. An on-site loading and move-

⁵⁷ City of Moreno Valley, Moreno Valley Walmart Noise Impact Analysis, Table 9-1, pg. 71, February 10, 2015; and City of Pomona, Pomona Ranch Plaza Walmart Expansion Project, Table 4.4-5, pg. 4.4-33, August 2014. Documentation provided in Appendix K-5 of this Draft EIR.

⁵⁸ Federal Highway Administration, Noise Barrier Design Handbook, Table 3, June 28, 2017, https://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/design/design03.cfm. Accessed October 2018.

⁵⁹ City of Moreno Valley, Moreno Valley Walmart Noise Impact Analysis, Table 9-1, pg. 71, February 10, 2015; and City of Pomona, Pomona Ranch Plaza Walmart Expansion Project, Table 4.4-5, pg. 4.4-33, August 2014. Documentation provided in Appendix K-5 of this Draft EIR.

⁶⁰ The 3 dBA threshold applies to sensitive receptor location R2 because, at 70 dBA without the Project, the addition of the 0.4 dBA, R2 is in the Normally Unacceptable category.

in/out service area would also be accessed from the alley near the center of the property line.

Sources of noise associated with parking areas typically include engines accelerating, doors slamming, car alarms, horns honking, tire squeals, and people talking. Noise levels at these facilities would fluctuate throughout the day with the amount of vehicle and human activity. Noise levels would generally be the highest in the morning and evening peak traffic hours when the largest number of vehicles would enter and exit the parking structures.

Although the residential uses would be provided with private garage parking and there are a total of three access driveways, for the purpose of providing a conservative, quantitative estimate of the noise levels that would be generated by vehicles entering and exiting the Project Site, the methodology recommended by FTA for the general assessment of parking-related noise sources was used, as discussed in the Methodology Section.

Based on the Project's *Transportation Study* provided in Appendix N of this Draft EIR, the Project is forecasted to generate 2,353 daily vehicle trips (2,227 net daily vehicle trips), including an anticipated 204 trips and 216 trips during the A.M. and P.M. peak hours. Using the FTA's reference noise level of 92 dBA SEL⁶¹ at 50 feet from the noise source for a parking lot, and conservatively assuming that all of the Project's peak hour trips, which would be 216 trips during the P.M. peak hour, would occur at a single driveway, the noise level would be approximately 50 dBA L_{eq} at 50 feet. This calculated noise level assumes no noise attenuation from walls, partial screens, or other barriers, and is thus a very conservative estimate. The Project driveway entrance located near the northern property line approximately 10 feet from the noise-sensitive uses at sensitive receptor location R1 (multi-family residences north of the Project Site along Olive Street) and the Project driveway entrance located near the western property line approximately 10 feet from the noise-sensitive uses at sensitive receptor location R2 (multi-family residences west of the Project Site along alley) represent the Project driveways closest to noise sensitive uses. Based on these distances and the noise attenuation of 5 dBA achieved by AES-PDF-4, the vehicle-related noise levels would be approximately 59 dBA L_{eq} at sensitive receptor locations R1 and R2, which is well below their existing noise levels of 69 dBA and 70 dBA, respectively, and which would increase the ambient noise level of 69 dBA L_{eq} by 0.4 dBA at sensitive receptor location R1 and the ambient noise level of 70 dBA L_{eq} by 0.3 dBA at sensitive receptor location R2. Because the vehicle-related noise would not increase ambient noise levels at the noise sensitive receptor locations R1 and R2 by the applicable 5 dBA and 3 dBA threshold, respectively, impacts would be less than significant, and no mitigation measures are required.

⁶¹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 4-13 and Table 4-14, pages 45 and 47, 2018.

As such, Project-related parking noise would not result in the exposure of persons (including the surrounding sensitive receptors) to or generation of noise levels in excess of significance thresholds.

(v) *Emergency Generator Noise*

The Project would include one on-site emergency generator, which would be located within subterranean parking garage level B-1. However, the exhaust pipe for the emergency generator would feed into the general building's exhaust system and be vented to the roof of the tower. There would be no venting adjacent to existing residential uses, however. The emergency generator would be used in the event of a power outage to provide electricity for emergency safety lighting and other emergency electricity needs. Maintenance and testing of the emergency generator would not occur daily, but rather periodically, up to 50 hours per year per South Coast Air Quality Management District (SCAQMD) Rule 1470 (refer to Section IV.B, *Air Quality*, of this Draft EIR). The exhaust pipe would be located approximately 720 feet above the top of the nearest multi-family residential uses (sensitive receptor location R1).

Based on a noise survey that was conducted by ESA for an equivalent generator, the Project's generator would generate noise levels of approximately 96 dBA L_{eq} at a reference distance of 25 feet.⁶² Accounting for distance attenuation (minimum 29 dBA loss) at the noise sensitive uses, and accounting for barrier-insertion loss by the Project structures (minimum 15 dBA insertion loss), generator-related activity noise would be approximately 52 dBA L_{eq} at the noise-sensitive uses. This would increase the daytime ambient noise level of 69 dBA L_{eq} at the noise-sensitive uses represented by sensitive receptor location R1 by 0.1 dBA, which would not exceed the 5 dBA significance threshold. As such, the emergency generator noise would not result in the exposure of persons (including the surrounding sensitive receptors) to or generation of noise levels in excess of significance thresholds.

(b) *Off-site Project Traffic*

(i) *Impacts Under Existing Traffic Baseline Conditions Plus Project*

Existing roadway noise levels were calculated along the 50 roadway segments identified for analysis by the City located in the vicinity of the Project Site using the traffic noise model previously described for use as the baseline noise levels that would occur under the "Without Project" condition. The "With Project" roadway noise levels were calculated using the traffic data provided in the *Transportation Study* prepared for the Project, which is included in Appendix N of this Draft EIR. As discussed in the Transportation Study, the

⁶² The generator noise measurements were conducted at a Time Warner facility using the Larson-Davis 820 Precision Integrated Sound Level Meter (sound meter) in May 2016. The Larson-Davis 820 sound meter is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of approximately five feet above the local grade. Measurement data are provided in Appendix K-6 of this Draft EIR.

Project is expected to generate a net increase of approximately 2,227 daily vehicle trips. This increase in roadway traffic was analyzed to determine if any traffic-related noise impacts would result from operation of the Project.

Project impacts are shown in **Table IV.J-11, Off-Site Traffic Noise Impacts-Existing with Project Conditions**. As shown, the maximum increase in Project-related traffic noise levels over existing traffic noise levels would be 0.3 dBA CNEL in an area characterized by normally acceptable noise levels (see Table IV.J-4), which is well below the applicable threshold of a 5 dBA CNEL increase. The increases, if any, in sound levels would be lower at the remaining analyzed roadway segments. In no instance would any increase exceed the applicable threshold of 5 dBA for areas characterized by normally acceptable or conditionally acceptable noise levels or the applicable threshold of 3 dBA for areas characterized by normally unacceptable or clearly unacceptable noise levels (see Table IV.J-4). Accordingly, the projected Project operational roadway noise increases would be below the applicable thresholds, and impacts would be less than significant.

TABLE IV.J-11
OFF-SITE TRAFFIC NOISE IMPACTS – EXISTING WITH PROJECT CONDITIONS

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)			
		Existing (A)	Existing with Project (B)	Project Increment (B-A)	Exceed Threshold?
11th Street					
Between Figueroa Street and Flower Street	Commercial	65.8	65.8	0.0	No
Between Flower Street and Hope Street	Commercial	65.0	65.0	0.0	No
Between Hope Street and Grand Avenue	Residential/Commercial	65.2	65.3	0.1	No
Between Grand Avenue and Olive Street	Residential/Commercial	65.6	65.8	0.2	No
Between Olive Street and Hill Street	Commercial	64.9	65.2	0.3	No
Between Hill Street and Broadway	Residential/Commercial	65.2	65.3	0.1	No
Between Broadway and Main Street	Commercial	65.6	65.7	0.1	No
Between Main Street and Los Angeles Street	Commercial	65.5	65.5	0.0	No
Olympic Boulevard					
Between Figueroa Street and Flower Street	Residential/Commercial	70.4	70.5	0.1	No
Between Flower Street and Hope Street	Residential/Commercial	70.3	70.3	0.0	No
Between Hope Street and Grand Avenue	Residential/Commercial	70.9	71.0	0.1	No
Between Grand Avenue and Olive Street	Residential/Commercial	70.6	70.8	0.2	No
Between Olive Street and Hill Street	Residential/Commercial	70.2	70.2	0.0	No
Between Hill Street and Broadway	Commercial	70.1	70.2	0.1	No
Between Broadway and Main Street	Residential/Commercial	69.4	69.4	0.0	No
Between Main Street and Los Angeles Street	Commercial	69.0	69.1	0.1	No
Olive Street					
Between 8th Street and 9th Street	Residential/Commercial	68.4	68.5	0.1	No
Between 9th Street and Olympic Boulevard	Residential/Commercial	67.6	67.8	0.2	No

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)			
		Existing (A)	Existing with Project (B)	Project Increment (B-A)	Exceed Threshold?
Between Olympic Boulevard and 11 th Street	Residential/Commercial	67.2	67.3	0.1	No
Between 11 th Street and 12 th Street	Commercial	68.5	68.5	0.0	No
Between 12 th Street and Pico Boulevard	Residential/Commercial	68.7	68.7	0.0	No
Between Pico Boulevard and Venice Boulevard	Commercial	69.8	69.8	0.0	No
Between Venice Boulevard and 17 th Street	Commercial	69.8	69.8	0.0	No
Between 17 th Street and 18 th Street	Commercial	70.0	70.0	0.0	No
Grand Avenue					
Between 8 th Street and 9 th Street	Residential/Commercial	69.2	69.3	0.1	No
Between 9 th Street and Olympic Boulevard	Residential/Commercial	68.6	68.7	0.1	No
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.1	69.2	0.1	No
Between 11 th Street and Pico Boulevard	Residential/Commercial	69.6	69.6	0.0	No
Between Pico Boulevard and Venice Boulevard	Residential/Hospital/ Commercial	67.7	67.7	0.0	No
Between Venice Boulevard and 17 th Street	Residential/Commercial	67.3	67.3	0.0	No
Between 17 th Street and 18 th Street	Commercial	65.7	65.7	0.0	No
Pico Boulevard					
Between LA Live Way and Figueroa Street	Commercial	69.9	70.0	0.1	No
Between Figueroa Street and Grand Avenue	Residential/Commercial	69.6	69.7	0.1	No
Between Grand Avenue and Olive Street	Residential/Commercial	67.7	67.7	0.0	No
Between Olive Street and Hill Street	Residential/Commercial	67.0	67.0	0.0	No
8th Street					
Between Grand Avenue and Olive Street	Residential/Commercial	68.5	68.5	0.0	No
9th Street					
Between Grand Avenue and Olive Street	Residential/Commercial	68.7	68.8	0.1	No
Venice Boulevard					
Between Grand Avenue and Olive Street	Residential/Commercial	66.9	66.9	0.0	No
17th Street					
Between Grand Avenue and Olive Street	Commercial	68.3	68.3	0.0	No
18th Street					
Between Grand Avenue and Olive Street	Commercial	70.8	70.8	0.0	No
Los Angeles Street					
Between 11 th Street and Olympic Boulevard	Commercial	69.7	69.7	0.0	No
North of Olympic Boulevard	Commercial	69.9	69.9	0.0	No
Hill Street					
Between Olympic Boulevard and 11 th Street	Commercial/Educational	69.1	69.1	0.0	No
Between 11 th Street and Pico Boulevard	Residential/Commercial/ Educational	68.8	68.8	0.0	No

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)			Exceed Threshold?
		Existing (A)	Existing with Project (B)	Project Increment (B-A)	
Figueroa Street					
Between Olympic Boulevard and 11 th Street	Commercial/Hotel	66.1	66.1	0.0	No
Between 11 th Street and Pico Boulevard	Commercial	66.4	66.4	0.0	No
Flower Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.9	69.9	0.0	No
Hope Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial/ Educational	67.6	67.6	0.0	No
Broadway Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.3	69.3	0.0	No
Main Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial	68.3	68.3	0.0	No

SOURCE: ESA, 2019.

(ii) *Impacts Under Future Traffic Conditions Plus Project*

Future roadway noise levels were also calculated along various arterial and residential segments in the Project Site vicinity to establish future traffic noise levels, to which the Project's off-site traffic noise during operations would be added. Project impacts are shown in **Table IV.J-12, Off-Site Traffic Noise Impacts – Future with Project Conditions**. As shown in Table IV.J-12, the maximum increase in Project-related traffic noise levels over future traffic noise levels would be 0.2 dBA CNEL, which is well below a “clearly noticeable” increase of 5 dBA CNEL, and below the applicable 3 dBA CNEL threshold in an area characterized by normally or clearly unacceptable noise levels, (see Table IV.J- 2). The increases, if any, in off-site traffic noise would be lower on the remaining roadway segments analyzed. As such, Project-related increases in traffic noise under Future Traffic Conditions would not result in the exposure of persons (including the surrounding sensitive receptors) to or generation of noise levels in excess of significance thresholds.

TABLE IV.J-12
OFF-SITE TRAFFIC NOISE IMPACTS – FUTURE WITH PROJECT CONDITIONS

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)			
		Future (A)	Future with Project (B)	Project Increment (B-A)	Exceed Threshold?
11 th Street					
Between Figueroa Street and Flower Street	Commercial	67.5	67.6	0.1	No
Between Flower Street and Hope Street	Commercial	69.0	69.0	0.0	No
Between Hope Street and Grand Avenue	Residential/Commercial	68.9	68.9	0.0	No
Between Grand Avenue and Olive Street	Residential/Commercial	69.3	69.5	0.2	No
Between Olive Street and Hill Street	Commercial	68.0	68.1	0.1	No
Between Hill Street and Broadway	Residential/Commercial	67.9	68.0	0.1	No
Between Broadway and Main Street	Commercial	68.3	68.3	0.0	No
Between Main Street and Los Angeles Street	Commercial	68.3	68.3	0.0	No
Olympic Boulevard					
Between Figueroa Street and Flower Street	Residential/Commercial	73.3	73.3	0.0	No
Between Flower Street and Hope Street	Residential/Commercial	72.8	72.8	0.0	No
Between Hope Street and Grand Avenue	Residential/Commercial	73.6	73.6	0.0	No
Between Grand Avenue and Olive Street	Residential/Commercial	73.3	73.4	0.1	No
Between Olive Street and Hill Street	Residential/Commercial	72.8	72.8	0.0	No
Between Hill Street and Broadway	Commercial	72.5	72.5	0.0	No
Between Broadway and Main Street	Residential/Commercial	71.6	71.6	0.0	No
Between Main Street and Los Angeles Street	Commercial	70.8	70.8	0.0	No
Olive Street					
Between 8 th Street and 9 th Street	Residential/Commercial	71.2	71.3	0.1	No
Between 9 th Street and Olympic Boulevard	Residential/Commercial	70.4	70.4	0.0	No
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.8	69.9	0.1	No
Between 11 th Street 12 th Street	Commercial	71.1	71.2	0.1	No
Between 12 th Street and Pico Boulevard	Residential/Commercial	71.4	71.5	0.1	No
Between Pico Boulevard and Venice Boulevard	Commercial	71.5	71.6	0.1	No
Between Venice Boulevard and 17 th Street	Commercial	71.4	71.5	0.1	No
Between 17 th Street and 18 th Street	Commercial	71.2	71.3	0.1	No
Grand Avenue					
Between 8 th Street and 9 th Street	Residential/Commercial	71.5	71.5	0.0	No
Between 9 th Street and Olympic Boulevard	Residential/Commercial	70.8	70.9	0.1	No
Between Olympic Boulevard and 11 th Street	Residential/Commercial	71.4	71.4	0.0	No
Between 11 th Street and Pico Boulevard	Residential/Commercial	71.9	71.9	0.0	No

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)			
		Future (A)	Future with Project (B)	Project Increment (B-A)	Exceed Threshold?
Between Pico Boulevard and Venice Boulevard	Residential/Hospital/ Commercial	70.3	70.3	0.0	No
Between Venice Boulevard and 17 th Street	Residential/Commercial	69.9	69.9	0.0	No
Between 17 th Street and 18 th Street	Commercial	68.2	68.2	0.0	No
Pico Boulevard					
Between LA Live Way and Figueroa Street	Commercial	72.9	73.0	0.1	No
Between Figueroa Street and Grand Avenue	Residential/Commercial	72.2	72.3	0.1	No
Between Grand Avenue and Olive Street	Residential/Commercial	70.3	70.4	0.1	No
Between Olive Street and Hill Street	Residential/Commercial	69.7	69.7	0.0	No
8th Street					
Between Grand Avenue and Olive Street	Residential/Commercial	71.0	71.0	0.0	No
9th Street					
Between Grand Avenue and Olive Street	Residential/Commercial	72.0	72.0	0.0	No
Venice Boulevard					
Between Grand Avenue and Olive Street	Residential/Commercial	67.7	67.7	0.0	No
17th Street					
Between Grand Avenue and Olive Street	Commercial	69.9	69.9	0.0	No
18th Street					
Between Grand Avenue and Olive Street	Commercial	72.8	72.9	0.1	No
Los Angeles Street					
Between 11 th Street and Olympic Boulevard	Commercial	70.8	70.8	0.0	No
North of Olympic Boulevard	Commercial	70.9	70.9	0.0	No
Hill Street					
Between Olympic Boulevard and 11 th Street	Commercial/Educational	71.5	71.6	0.1	No
Between 11 th Street and Pico Boulevard	Residential/Commercial/ Educational	70.9	70.9	0.0	No
Figueroa Street					
Between Olympic Boulevard and 11 th Street	Commercial/Hotel	68.9	68.9	0.0	No
Between 11 th Street and Pico Boulevard	Commercial	69.0	69.1	0.1	No
Flower Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial	72.7	72.7	0.0	No
Hope Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial/ Educational	68.4	68.4	0.0	No
Broadway Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial	71.7	71.7	0.0	No

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)			
		Future (A)	Future with Project (B)	Project Increment (B-A)	Exceed Threshold?
Main Street					
Between Olympic Boulevard and 11 th Street	Residential/Commercial	71.5	71.5	0.0	No

SOURCE: ESA, 2019.

Project-related increases in operational traffic noise would not result in the exposure of persons (including the surrounding sensitive receptors) to or generation of noise levels in excess of significance thresholds. Project-related traffic noise impacts would be less than significant and no mitigation measures are required.

(c) *Composite Noise Impacts from Project Operations*

Based on the Thresholds Guide, the significance criteria used to evaluate composite noise levels (i.e., on-site and off-site sources) is an increase in the ambient noise level of 5 dBA for the Project's composite noise (both Project-related on-site and off-site sources) at affected uses.⁶³ This analysis assumes a worst case scenario that all operational noise sources would occur simultaneously.

An evaluation of the combined noise levels from the Project's various operational noise sources (i.e., composite noise level) was conducted to conservatively determine the potential maximum Project-related noise level increase that may occur at the nearest off-site noise-sensitive receptors. Operational noise sources associated with the Project include traffic on nearby roadways, open space related activities, on-site mechanical equipment, loading and refuse service related activities, on-site parking related activities, and on-site generator.

The maximum composite noise impacts would generally be expected at the Project Site boundary, as shown below. The nearest noise-sensitive receptors are receptor locations R1 and R2, which are multi-family residential uses. Sensitive receptor locations R1 and R2 would have same level of Project-related noise impacts; however, the ambient noise level at sensitive receptor location R1 is lower by 1 dBA than the ambient noise level at sensitive receptor location R2. Therefore, sensitive receptor location R1 represents a worst case scenario and the maximum composite noise impacts would occur at sensitive receptor location R1.

Table IV.J-13, Project Operational Composite Noise Levels Near Sensitive Receptor Location R1, summarizes Project operational contributions to the composite noise environment. As shown in Table IV.J-13, Project operation could increase the exterior ambient noise level by approximately 1.5 dBA at the closest residences in the area represented by sensitive receptor location R1. This would not exceed the City's standards for evaluating operational noise, which limit acceptable noise increases to 3 dBA at noise-

⁶³ City of Los Angeles CEQA Thresholds Guide. Accessed July 2018.

sensitive receptors.⁶⁴ Therefore, the Project's operational composite noise impact would be less than significant, and no mitigation is required.

Accordingly, based on the above analysis, both on-site and off-site Project operational activities and related operational traffic would not result in the exposure of persons to or generation of noise levels in excess of significance thresholds. Impacts would be less than significant.

**TABLE IV.J-13
PROJECT OPERATIONAL COMPOSITE NOISE LEVELS AT RECEPTOR LOCATION R1**

Operational Noise Sources	Noise Levels dBA L _{eq}
(A) Existing (Ambient) Noise Level at Receptor R1	69
Project Composite Noise Sources	
(1) Open Space – 8 th and 10 th Floor Podium Terraces	55
(2) Fixed Mechanical Equipment	59
(3) Loading and Refuse Service Areas	60
(4) Parking Areas	59
(5) Emergency Generator	52
(6) Off-site traffic (11th Street, between Grand Avenue and Olive Street)	
Existing traffic noise level	65.6
Existing plus Project traffic noise level	65.8
Estimated Project-only traffic noise level	53.3
(B) Project Composite Noise Level (1+2+3+4+5+6) ^a	65.2
(C) Existing Plus Project Composite Noise Level (A+B) ^a	70.5
Project Increment (C-A)	1.5
Exceeds Significance Threshold (3 dBA increase) Before Mitigation?	No
^a Noise levels are added logarithmically. SOURCE: ESA, 2019.	

⁶⁴ The 3 dBA threshold applies because the addition of the Project's composite noise level would increase the noise level at the R1 receptor location to the normally unacceptable category.

Threshold b) Would the Project result in the generation of excessive groundborne vibration or groundborne noise levels? Less than Significant Impact with Mitigation.

(1) Construction

(a) Structural Impacts

(i) Nearby Buildings

Construction activities may generate groundborne vibration and groundborne noise from transient sources due to the temporary and sporadic use of vibration-generating equipment. Construction of the Project would have the potential to cause structure damage to off-site buildings that are located within 50 feet of the Project Site.

Construction activities on the Project Site have the potential to generate low levels of groundborne vibration as the operation of heavy equipment (i.e., backhoe, drill rig, excavator, loader, paver, and haul trucks, etc.) generates vibrations that propagate through the ground. Pursuant to NOISE-PDF-1, high-impact activities, such as pile driving or blasting, would not be used during Project construction. Groundborne vibrations from construction activities very rarely reach the levels that can damage buildings or structures, but they may be perceived in buildings very close to a construction site; as explained above, vibration diminishes in intensity with distance from the source.

The PPV vibration velocities for several types of construction equipment that can generate substantial vibration levels are shown in **Table IV.J-14, *Vibration Source Levels for Construction Equipment***. Based on the information presented therein, vibration velocities could range from 0.003 to 0.089 in/sec PPV at a distance of 25 feet from the source of activity. As discussed above, the buildings located to the north, northwest (represented by sensitive receptor location R1), west (sensitive receptor location R2 and R3), and southwest (sensitive receptor location R8) of the Project Site are either concrete structures or timber buildings. As discussed in Section IV.C, *Cultural Resources*, of this Draft EIR, over time, the existing built environment in the Project Site vicinity has been substantially altered by demolition, redevelopment and infill construction such that the Project Site is not adjacent to any buildings that qualify as historical resources. Six historical resources determined eligible for the California Register and National Register were identified in the vicinity of the Project Site, within the area bounded by Grand to the northwest, West Olympic Boulevard to the northeast, South Hill Street to the southeast, and West 12th Street to the southwest. These include resources within the Broadway Theater and Commercial District, and the California Mart District. However, none of these resources is adjacent to the Project Site and none would be physically affected by the Project. Thus, there are no historical structures located within 50 feet of the Project Site, and the appropriate standard for the protection of the buildings that are located within 50 feet of the Project Site is 0.5 in/sec PPV, which is the City's chosen threshold. The nearest buildings are located directly adjacent to the Project Site to the north at sensitive receptor location R1 (Oakwood Olympic & Olive project).

Construction activities on the Project Site would occur at varying distances from receptor location R1 during each construction phase; however, given that the vibration levels would be greatest when a single piece of equipment would be operating near the residential structure, a distance of five feet from receptor location R1 was used for the vibration evaluation. At five feet, a large bulldozer could produce vibration velocities of up to approximately 0.995 in/sec PPV at the adjacent off-site residential buildings. This vibration level would exceed the 0.5 in/sec PPV significance threshold for potential residential building damage. Therefore, construction vibration impacts regarding building damage would be potentially significant and mitigation is required.

TABLE IV.J-14
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Approximate PPV (in/sec)						Approximate RMS (VdB)					
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	160 Feet	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	160 Feet
Large Bulldozer	0.089	0.031	0.024	0.017	0.011	0.0055	87	78	76	73	69	63
Bore/Drill Rig	0.089	0.031	0.024	0.017	0.011	0.0055	87	78	76	73	69	63
Loaded Trucks	0.076	0.027	0.020	0.015	0.010	0.0047	86	77	75	72	68	61
Jackhammer	0.035	0.012	0.009	0.007	0.004	0.002	79	70	68	65	61	54
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004	0.0002	58	49	47	44	40	34

SOURCE: FTA, Transit Noise and Vibration Impact Assessment Manual, 2018; ESA, 2018.

As such, Project construction would potentially result in the generation of excessive groundborne vibration that could result in structural damage to off-site residential buildings and impacts would be potentially significant. However, mitigation measures NOISE-MM-4 and NOISE-MM-5, identified below, would reduce the Project's construction groundborne vibration impact related to potential structural damage on these receptors to a less than significant level by establishing a buffer zone for high vibration-generating equipment and designating a construction relations officer to serve as a liaison with the adjacent mixed-use developments to implement steps, if needed, to reduce construction noise and vibration levels as deemed appropriate and safe by the on-site construction manager.

(ii) *Zanja No. 8*

As discussed in Section IV.C, *Cultural Resources*, of this Draft EIR, while no archaeological resources have been documented within the Project Site, *Zanja No. 8* is

depicted on maps as being adjacent and to the west of the Project Site, potentially within the public mid-block alley where ingress/egress improvements associated with the Project will be made. For the purposes of this EIR, the City of Los Angeles is treating the *Zanja* No. 8 as an historical resource under State CEQA Guidelines Section 15064.5(a)(3). As discussed in Section IV.C, *Cultural Resources*, of this Draft EIR the alley was inspected for any surface evidence of archaeological resources, including *Zanja* No. 8; however, none was identified as the alley is currently paved. Lack of surface evidence, however, does not preclude the potential for intact archaeological resources to be present below such pavement.

Construction of the Project would include demolition of the existing structures and excavation for the subterranean parking structures and foundations, which could generate vibration on the western side of the Project Site from the use of heavy-duty construction equipment. Similar types of construction demolition and excavation activities have occurred in the recent past in the vicinity of the mapped location of *Zanja* No. 8 including those associated with the construction of the multi-family residential uses at 1001 S. Olive Street, 1000 S. Grand Avenue, and 1050 S. Grand Avenue, all of which border the alley, similar to the Project.

The City has not adopted a threshold for vibration impacts to buried archaeological resources. However, it is common practice for many lead agencies, and common practice of the City, to rely on recommended vibration criteria published by the FTA in its *Transit Noise and Vibration Impact Assessment Manual*.⁶⁵ Under this FTA guidance, a PPV of 0.12 in/sec PPV is protective of and avoids damage to buildings that are extremely susceptible to vibration damage. While the FTA's 0.12 in/sec PPV criterion refers to buildings extremely susceptible to vibration damage, and not to buried archeological resources, it is relied upon herein as a potential indicator for possible damage to the *Zanja* No. 8. According to the FTA guidance, construction activities that typically generate the most severe vibrations are blasting and impact pile driving. However, as indicated in NOISE-PDF-1, the Project will not use impact pile drivers and will not allow blasting during construction activities.

Nonetheless, construction of the Project could generate vibration levels of up to 0.995 in/sec PPV at a distance of 5 feet away. **Conservatively assuming that *Zanja* No. 8 is located on the eastern side of the public mid-block alley close to the western side of the Project Site, construction of the Project could potentially generate vibration levels that may result in damage to the *Zanja* No. 8, and mitigation measures are required. However, mitigation measure NOISE-MM-4, identified below, as well as mitigation measures CULT-MM-1 through CULT-MM-5, as discussed in Section IV.C, *Cultural Resources*, would reduce the Project's construction groundborne vibration impacts related to potential structural damage to *Zanja* No. 8 to less than significant levels, as discussed below.**

⁶⁵ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

(b) *Human Annoyance*

Construction activities may generate groundborne vibration and groundborne noise levels that could be felt by people as a result of trucks and vehicles driving to and from the Project Site, or from the use of construction equipment because groundborne vibration and noise thresholds for human annoyance are much lower than groundborne vibration and noise thresholds for structural damage.

As discussed previously, the relationship between groundborne vibration and groundborne noise depends on the frequency content of the vibration and the acoustical absorption characteristics of the receiving room. For typical buildings, groundborne vibration results in groundborne noise levels that are approximately 35 to 37 decibels lower than the velocity levels.⁶⁶ According the FTA *Transit Noise and Vibration Impact Assessment Manual*, most of the studies of groundborne vibration in this country have focused on urban rail transit and the problems with groundborne vibration and noise that are common when there is less than 50 feet between a subway structure and building foundations. Project construction would not create on-going and continuous groundborne vibration and noise like that of an urban rail transit system. Project construction would generate intermittent or periodic groundborne vibration and noise, which means that groundborne vibration and noise impacts would be less than those of an urban rail transit system. However, as discussed above, the nearest noise-sensitive uses, represented by receptor locations R1 and R2, would be located approximately 5 feet and 20 feet, respectively, from the Project Site property lines, and could be exposed to groundborne vibration levels of up to 108 VdB at receptor location R1 and 90 VdB at receptor location R2 from the use of a large bulldozer, which would exceed the 72 VdB threshold for human annoyance.⁶⁷ As stated above, groundborne vibration results in groundborne noise levels approximately 35 to 37 decibels lower than the velocity level.⁶⁸ Nonetheless, since groundborne noise is a direct result of groundborne vibration, groundborne noise would be considered significant.

Therefore, Project construction could result in the generation of excessive groundborne vibration and groundborne noise that could reach or exceed human annoyance levels at off-site residences, resulting in a potentially significant impact. However, mitigation measures NOISE-MM-4 and NOISE-MM-5, identified below, would reduce the Project's construction groundborne vibration and groundborne noise impacts related to potential human annoyance on these receptors to less than significant levels, as discussed below.

⁶⁶ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 6-3 and Table 6-14, pages 126 and 146, 2018.

⁶⁷ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, Table 6-3, page 126, 2018.

⁶⁸ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, Table 6-3 and Table 6-14, pages 126 and 146, 2018.

(2) Operation

(a) *Structural Impacts*

Operation of the Project has no potential to cause structure damage to the Project's own buildings or to off-site buildings that are farther away because the Project would not include any equipment that would generate substantial groundborne vibration or noise levels. The Project's day-to-day operations would include typical commercial-grade stationary mechanical equipment, such as air handling units, condenser units, and exhaust fans, which would produce vibration at low levels. According to the American Society of Heating, Refrigerating and Air-Conditioning Engineers, pumps or compressors associated with air conditioning units and exhaust fans would generate groundborne vibration levels of 0.5 in/sec PPV at one foot.⁶⁹ The off-site vibration-sensitive residential building closest to the mechanical equipment, which is sensitive receptor location R1, is located approximately 50 feet away. Each of the above-mentioned pieces of fixed mechanical equipment and activities associated with them would generate groundborne vibration of approximately 0.0068 in/sec PPV at sensitive receptor location R1. This vibration level would not exceed the 0.5 in/sec PPV significance threshold for potential building damage.

As discussed above, the loading dock and refuse service entrance would be located at the edge of the Project's property line facing the alley and approximately 50 feet from the northwest corner of the Project building. The nearest noise-sensitive uses to the west of the Project Site, represented by noise measurement locations R1 and R2 (multi-family residential uses), would each be located approximately 50 feet from the loading dock and refuse service areas. According to the FTA, delivery trucks rarely generate vibration that exceeds 70 VdB,⁷⁰ which is equivalent to approximately 0.013 in/sec PPV. Therefore, given a distance of approximately 50 feet from the loading dock and refuse service areas to the nearest vibration sensitive uses, the loading dock and refuse service areas would generate vibration levels of less than 0.013 in/sec PPV at the nearest vibration sensitive uses, which would not exceed the 0.5 in/sec PPV significance threshold for potential building damage. Furthermore, with respect to the *Zanja* No. 8, a vibration level of 0.013 in/sec PPV or less would not be anticipated to result in damage to the *Zanja* No. 8. Delivery trucks and vans that would use the alley and loading dock areas of the Project would be similar to the types of delivery trucks and vans that already currently use the alley under existing conditions for the existing multi-family uses (e.g., at 1001 S. Olive Street).

As such, Project operation would not result in the generation of excessive groundborne vibration that could result in any structural damage to off-site

⁶⁹ America Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Heating, Ventilating, and Air-Conditioning Applications, 1999.

⁷⁰ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, page 113, 2018.

residential buildings or the Zanja No. 8, and impacts would be less than significant, and no mitigation is required.

(b) Human Annoyance

Operational activities may generate groundborne vibration and groundborne noise levels that could be felt by people as a result of vehicles driving to and from the Project Site, or from the operation of typical commercial-grade stationary mechanical and electrical equipment used for residential and commercial land uses, such as air handling units, condenser units, and exhaust fans, which could produce groundborne vibration and noise because groundborne vibration and noise thresholds for human annoyance are much lower than groundborne vibration and noise thresholds for structural damage.

The above-mentioned groundborne vibration sources associated with the Project's fixed mechanical equipment would generate groundborne vibration of up to 60 VdB at the nearest vibration-sensitive residential buildings, which would not exceed the threshold of 72 VdB for human annoyance. As stated above, groundborne vibration results in groundborne noise levels approximately 35 to 37 decibels lower than the velocity level.⁷¹ Since groundborne noise is a direct result of groundborne vibration, groundborne noise would also be considered less than significant.

As discussed above, the loading dock and refuse service entrance would be located at the edge of the Project's property line facing the alley and approximately 50 feet from the northwest corner of the Project building. The nearest noise-sensitive uses to the west of the Project Site, represented by noise measurement locations R1 and R2 (multi-family residential uses), would each be located approximately 50 feet from the loading dock and refuse service areas. According to the FTA, delivery trucks rarely generate vibration that exceeds 70 VdB.⁷² Therefore, given a distance of approximately 50 feet from the loading dock and refuse service areas to the nearest vibration sensitive uses, the loading dock and refuse service areas would generate vibration levels of less than 70 VdB at the nearest vibration sensitive uses, which would not exceed the threshold of 72 VdB for human annoyance.

Therefore, the potential groundborne vibration and groundborne noise levels from all Project operational sources at the nearest human annoyance receptor locations would not exceed the significance criteria for human annoyance. **As such, Project operation would not result in the generation of groundborne vibration and groundborne noise exceed human annoyance criteria. Impacts would be less than significant, and no mitigation is required.**

⁷¹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 6-3 and Table 6-14, pages 126 and 146, 2018.

⁷² Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, page 113, 2018.

Threshold c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels? No Impact.*

As discussed in Chapter VI (subsection Impacts Found Not to be Significant) and in the *Initial Study* (Appendix A-2), the Project Site is not located within an airport land use plan or within two miles of an airport. The two nearest airports are the Hawthorne Municipal Airport and the Los Angeles International Airport, which are located approximately 9 and 10 miles southwest of the Project Site, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. **Thus, the Project would have no impact with respect to Threshold e). No mitigation measures are required**

e) Cumulative Impacts

The geographic context for the analysis of cumulative noise impacts depends on the impact being analyzed. Noise from on-site sources is by definition a localized phenomenon, and significantly reduces in magnitude as the distance from the source increases. As such, only related projects and growth due to occur in the immediate area of the Project Site could contribute to cumulative on-site source noise impacts. However, cumulative off-site mobile source noise impacts could be created by traffic from all related projects throughout a larger area.

(1) Construction

(a) *Impacts from On-site Sources*

The potential for cumulative construction noise impacts from on-site construction activities to occur depends on the distance between the Project Site and the site of each of the related projects. Noise from construction activities would normally affect the areas immediately adjacent to each of the construction sites, specifically areas that are less than 500 feet from a construction site (500 feet is the distance identified in the Thresholds Guide as the Screening Criterion with respect to construction activities). That is, cumulative noise impacts could occur at receptor locations that are within 500 feet from two different construction sites.

As discussed in Chapter III, *General Description of Environmental Setting*, subsection III.2, Cumulative Projects, of this Draft EIR, the City has identified 195 related projects in the vicinity of the Project Site. The eight closest related projects are situated within 600 feet from the Project Site.

- Related Project No. 6, DTLA South Park – Site 1, located at 1120 S. Grand Avenue (270 feet). Construction of this related project has been completed and the project is operational;

- Related Project No. 10, Restaurant Project, located at 1036 S. Grand Avenue (50 feet);
- Related Project No. 18, 11th & Hill Project, located at 1111 S. Hill Street (360 feet);
- Related Project No. 48, Residential Project, located at 1027 S. Olive Street (5 feet); This related project is completed and operational, and would not contribute to cumulative construction impacts.
- Related Project No. 54, Olympic / Hill Project, located on the northwest corner of Olympic / Hill (450 feet). This related project is completed and operational, and would not contribute to cumulative construction impacts.
- Related Project No. 60, 1001 S Olive, located at 1001 S. Olive Street (immediately adjacent to north). This related project is completed and operational, and would not contribute to cumulative construction impacts.
- Related Project No. 61, Olive & Olympic, located on the northeast corner of Olive & Olympic (470 feet). This related project is completed and operational, and would not contribute to cumulative construction impacts.
- Related Project No. 143, Mixed-Use Project, located at 1000 S. Hill Street (600 feet).
- Related Project No. 190, DTLA South Park Project (Mack Urban Site 2), located at 1120 S. Olive Street (100 feet).
- Related Project No. 191, DTLA South Park Project (Mack Urban Site 3), located at 1115 S. Olive Street (60 feet).

In addition to the above-listed related projects, as discussed in Chapter III, *General Description of Environmental Setting*, subsection III.2, Related Projects, of this Draft EIR there are two transit improvement related projects that would be implemented in the vicinity of the Project Site and that would include improvements along 11th Street, adjacent to the Project Site.

- Related Project No. 193, MyFigueroa Project (Figueroa St. between 7th St. & 41st St., 11th St. between Figueroa St. & Broadway, and Martin Luther King Jr. Blvd. between Figueroa St. & Vernon Ave).
- Related Project No. 194, Los Angeles Streetcar Project (Broadway between 1st St. & 11th St., 11th St. between Figueroa St. & Broadway, Figueroa St. between 11th St. & 7th St., 7th St. between Figueroa St. & Hill St., Hill St. between 7th St. & 1st St., and 1st St. between Hill St. & Broadway).

As noted above, Related Project No. 48, No. 54, No. 60, and No. 61, as completed projects are treated as off-site sensitive receptors.⁷³ Related Project No. 6 has opened and is regarded as an off-site sensitive receptor since it has already been completed

⁷³ Related Project No. 48 and No. 60 are represented by sensitive receptor location R1. Related Project No. 54 and No. 61 are represented by sensitive receptor location R6. Related Project No. 6 is represented by sensitive receptor location R8.

before construction of the Project would commence; therefore, it is not included in the cumulative construction noise analysis. Related Project No. 190 and No. 191 are in the planning stages and no anticipated start of construction has been determined. However, for the purposes of a cumulative impact analysis, it is assumed that construction of Related Project No. 190 and No. 191 could potentially occur at the same time as the Project. The transportation improvement related projects, Related Project No. 193 and Related Project No. 194, could be under construction in the vicinity of and at the same time as the Project. All other related projects are located farther away from the Project Site, and many existing buildings are located between the Project Site and these other related projects.

Noise sensitive receptor location R1 (mixed-use residential uses north of the Project Site) would be located between the Project Site and Related Project No. 10. Noise Sensitive receptor location R6 (multi-family residential uses northeast of the Project Site) would be located between the Project Site and Related Project No. 143. Noise-sensitive receptor locations R1, R2, and R6 would be located north of Related Project No. 190 and No. 191 and north of the 11th Street improvements that would occur as part of the transportation improvement related projects, Related Project No. 193 and Related Project No. 194. Noise-sensitive receptor location R8 (future mixed use development southwest of the Project Site) would be located between the Project Site and Related Project No. 18. Noise-sensitive receptor location R8 would also be located west of Related Project No. 190 and No. 191 and south of the 11th Street improvements that would occur as part of the transportation improvement related projects, Related Project No. 193 and Related Project No. 194. If construction of the Project were to proceed simultaneously with any of Related Project No. 10, Related Project No. 18, Related Project No. 143, Related Project No. 190, Related Project No. 191, and the transportation improvement related projects, Related Project No. 193 and Related Project No. 194, the related projects could potentially contribute to cumulative construction noise impacts on the affected noise sensitive receptors (R1, R2, R6, and R8, as described above).

If simultaneous construction of the Project with one or more of these seven related projects were to occur, the cumulative construction site noise levels would occur on an intermittent and temporary basis, and the noise from each related project would cease at the end of the construction phase of each project. In addition, each project would be required to comply with time restrictions and other relevant provisions of the LAMC. Noise associated with construction activities would be reduced to the degree reasonably and technically feasible through proposed mitigation measures for each individual project and compliance with the City's noise ordinances. However, such measures would only reduce noise to a degree that is technically feasible, and significant residual noise levels could remain. **Therefore, even with implementation of proposed design features and mitigation measures, if nearby related projects were constructed concurrently with the Project, the Project could potentially contribute to significant and unavoidable cumulative construction noise impacts at noise sensitive receptors near to the Project Site, as represented by sensitive receptor locations R1, R2, R6 and R8.**

(b) *Impacts from Construction Traffic*

By contrast to cumulative on-site construction noise impacts, cumulative off-site construction noise impacts created by construction traffic from all related projects can contribute to noise levels on major thoroughfares throughout the area. However, because the timing of the construction activities for all of the related projects cannot be ascertained or predicted without engaging in speculation, and since that timing is beyond the control of both the City and the Applicant, a quantitative analysis that assumes that multiple related projects would be under construction concurrently would be entirely speculative such that a qualitative analysis is appropriate.

Off-site construction noise impacts from the related projects could only combine with the Project's off-site construction noise impacts if the related projects were under construction concurrently with the Project. It is highly unlikely that all of the related projects, or even a substantial number of them, would be under construction at the same time as the Project. Moreover, even if a number of related projects such as Related Project No. 10, Related Project No. 18, Related Project No. 143, Related Project No. 190, Related Project No. 191, Related Project No. 193, and Related Project No. 194, were under construction at the same time as the Project, most would generally have different haul routes and different traffic patterns associated with their construction. Each project applicant would be required to prepare and submit to LADOT for approval a construction management plan that would be based on the nature and timing of the specific construction and other projects in the vicinity of the development site. Further, each project applicant would be required to schedule construction-related deliveries to reduce travel during peak travel periods, which would minimize the noise impacts. **Therefore, for all these reasons, cumulative construction traffic noise impacts from the Project together with the related projects would be less than significant.**

(2) *Operations*

Cumulative off-site noise impacts would occur primarily as a result of increased traffic on local roadways due to operation of the Project and the related projects, as traffic is the greatest source of operational noise in the Project Site area. Cumulative off-site traffic-generated noise impacts were assessed based on a comparison of the noise levels generated by the future cumulative base traffic volumes with the Project to the noise levels generated by the existing base traffic volumes without the Project. The future cumulative base traffic volumes with the Project represent an estimate of the ambient background growth, related projects traffic, and the Project traffic volumes. Therefore, the cumulative increase represents the increment of the ambient background growth, related project traffic, and the Project traffic volumes over the existing conditions.

The results of that comparison are provided in **Table IV.J-15, Off-Site Traffic Noise Impacts – Future Cumulative Increment**. The maximum cumulative noise increase from the Project plus related project traffic and ambient background growth on cumulatively significant impacted roadway segments would be 3.3 dBA CNEL, which would occur along 9th Street, between Grand Avenue and Olive Street in an area with multi-family

residential and commercial uses and 3.2 dBA CNEL, which would occur along Main Street, between Olympic Boulevard and 11th Street in an area with multi-family residential and commercial uses. This increase in sound level would exceed the Thresholds Guide significance criteria of an increase of 3 dBA CNEL since the Future With Project noise levels would be in the normally unacceptable category for multi-family uses. However, as shown previously in Table IV.J-12, the Project's contribution to the Future with Project noise levels along these segments would be 0.0 dBA on both roadway segments. Therefore, the Project's contribution to the cumulative noise levels would be substantially below the 3 dBA increase in ambient noise levels that would be perceptible outside of a laboratory, and even substantially below the 1 dBA increase in noise levels that cannot be perceived except in carefully controlled laboratory experiments.⁷⁴ Furthermore, the Project's contributions to the off-site cumulative traffic noise levels of 0.0 dBA along 9th Street, between Grand Avenue and Olive Street, and 0.0 dBA along Main Street, between Olympic Boulevard and 11th Street, would not determine whether the cumulative increase in noise levels exceeded 3 dBA or more. In other words, the cumulative noise levels from the related projects would cause a cumulative increase of 3 dBA or more with or without development of the Project. This is particularly true of the Main Street segment, where the Project would contribute no increase at all. Therefore, the perceived noise levels at sensitive land uses along 9th Street, between Grand Avenue and Olive Street, and along Main Street, between Olympic Boulevard and 11th Street, with buildout of the related projects would be similar whether or not the Project is developed. For this reason, the Project's incremental contributions to cumulative noise impacts would be less than cumulatively considerable at the two roadway segments where the related projects' contribution would meet or exceed the 3 dBA cumulative increment threshold. As shown in Table IV.J-15, no roadway segments would have a cumulative increase of 5 dBA or more in areas classified as normally or conditionally acceptable. **As a result, the Project would not result in a cumulatively considerable increase in off-site traffic noise levels and the Project's contribution to off-site traffic-related operational noise would be cumulatively less than significant.**

**TABLE IV.J-15
OFF-SITE TRAFFIC NOISE—CUMULATIVE IMPACTS**

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)				
		Existing	Future with Project	Cumulative Increment	Project Increment ^a	Exceed Threshold?
11 th Street						
Between Figueroa Street and Flower Street	Commercial	65.8	67.6	1.8	0.1	No
Between Flower Street and Hope Street	Commercial	65.0	69.0	4.0	0.0	No
Between Hope Street and Grand Avenue	Residential/Commercial	65.2	68.9	3.7	0.0	No

⁷⁴ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013.

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)				
		Existing	Future with Project	Cumulative Increment	Project Increment ^a	Exceed Threshold?
Between Grand Avenue and Olive Street	Residential/Commercial	65.6	69.5	3.9	0.2	No
Between Olive Street and Hill Street	Commercial	64.9	68.1	3.2	0.1	No
Between Hill Street and Broadway	Residential/Commercial	65.2	68.0	2.8	0.1	No
Between Broadway and Main Street	Commercial	65.6	68.3	2.7	0.0	No
Between Main Street and Los Angeles Street	Commercial	65.5	68.3	2.8	0.0	No
Olympic Boulevard						
Between Figueroa Street and Flower Street	Residential/Commercial	70.4	73.3	2.9	0.0	No
Between Flower Street and Hope Street	Residential/Commercial	70.3	72.8	2.5	0.0	No
Between Hope Street and Grand Avenue	Residential/Commercial	70.9	73.6	2.7	0.0	No
Between Grand Avenue and Olive Street	Residential/Commercial	70.6	73.4	2.8	0.1	No
Between Olive Street and Hill Street	Residential/Commercial	70.2	72.8	2.6	0.0	No
Between Hill Street and Broadway	Commercial	70.1	72.5	2.4	0.0	No
Between Broadway and Main Street	Residential/Commercial	69.4	71.6	2.2	0.0	No
Between Main Street and Los Angeles Street	Commercial	69.0	70.8	1.8	0.0	No
Olive Street						
Between 8 th Street and 9 th Street	Residential/Commercial	68.4	71.3	2.9	0.1	No
Between 9 th Street and Olympic Boulevard	Residential/Commercial	67.6	70.4	2.8	0.0	No
Between Olympic Boulevard and 11 th Street	Residential/Commercial	67.2	69.9	2.7	0.1	No
Between 11 th Street and 12 th Street	Commercial	68.5	71.2	2.7	0.1	No
Between 12 th Street and Pico Boulevard	Residential/Commercial	68.7	71.5	2.8	0.1	No
Between Pico Boulevard and Venice Boulevard	Commercial	69.8	71.6	1.8	0.1	No
Between Venice Boulevard and 17 th Street	Commercial	69.8	71.5	1.7	0.1	No
Between 17 th Street and 18 th Street	Commercial	70.0	71.3	1.3	0.1	No
Grand Avenue						
Between 8 th Street and 9 th Street	Residential/Commercial	69.2	71.5	2.3	0.0	No
Between 9 th Street and Olympic Boulevard	Residential/Commercial	68.6	70.9	2.3	0.1	No
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.1	71.4	2.3	0.0	No
Between 11 th Street and Pico Boulevard	Residential/Commercial	69.6	71.9	2.3	0.0	No
Between Pico Boulevard and Venice Boulevard	Residential/Hospital Commercial	67.7	70.3	2.6	0.0	No
Between Venice Boulevard and 17 th Street	Residential/Commercial	67.3	69.9	2.6	0.0	No

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)				
		Existing	Future with Project	Cumulative Increment	Project Increment ^a	Exceed Threshold?
Between 17 th Street and 18 th Street	Commercial	65.7	68.2	2.5	0.0	No
Pico Boulevard						
Between LA Live Way and Figueroa Street	Commercial	69.9	73.0	3.1	0.1	No
Between Figueroa Street and Grand Avenue	Residential/Commercial	69.6	72.3	2.7	0.1	No
Between Grand Avenue and Olive Street	Residential/Commercial	67.7	70.4	2.7	0.1	No
Between Olive Street and Hill Street	Residential/Commercial	67.0	69.7	2.7	0.0	No
8th Street						
Between Grand Avenue and Olive Street	Residential/Commercial	68.5	71.0	2.5	0.0	No
9th Street						
Between Grand Avenue and Olive Street	Residential/Commercial	68.7	72.0	3.3	0.0	Yes
Venice Boulevard						
Between Grand Avenue and Olive Street	Residential/Commercial	66.9	67.7	0.8	0.0	No
17th Street						
Between Grand Avenue and Olive Street	Commercial	68.3	69.9	1.6	0.0	No
18th Street						
Between Grand Avenue and Olive Street	Commercial	70.8	72.9	2.1	0.1	No
Los Angeles Street						
Between 11 th Street and Olympic Boulevard	Commercial	69.7	70.8	1.1	0.0	No
North of Olympic Boulevard	Commercial	69.9	70.9	1.0	0.0	No
Hill Street						
Between Olympic Boulevard and 11 th Street	Commercial/ Educational	69.1	71.6	2.5	0.1	No
Between 11 th Street and Pico Boulevard	Residential/Commercial /Educational	68.8	70.9	2.1	0.0	No
Figueroa Street						
Between Olympic Boulevard and 11 th Street	Commercial/Hotel	66.1	68.9	2.8	0.0	No
Between 11 th Street and Pico Boulevard	Commercial	66.4	69.1	2.7	0.1	No
Flower Street						
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.9	72.7	2.8	0.0	No
Hope Street						
Between Olympic Boulevard and 11 th Street	Residential/Commercial /Educational	67.6	68.4	0.8	0.0	No
Broadway Street						
Between Olympic Boulevard and 11 th Street	Residential/Commercial	69.3	71.7	2.4	0.0	No
Main Street						

Roadway Segment	Existing Land Uses Located Along Roadway Segment	CNEL (dBA)				
		Existing	Future with Project	Cumulative Increment	Project Increment ^a	Exceed Threshold?
Between Olympic Boulevard and 11 th Street	Residential/Commercial	68.3	71.5	3.2	0.0	Yes

^a Refer to Project Increment in Table IV.J-12.

SOURCE: ESA, 2019.

With respect to on-site noise sources, as is the case for the Project, compliance with the LAMC-required provisions that limit stationary source noise from items such as mechanical equipment would ensure that noise levels would be less than significant at the property line for each related project. In addition, on-site noise generated by each related project would be sufficiently low and sufficiently distant from the Project Site that it would not result in an additive increase to Project-related noise levels. Further, noise from other on-site sources, including parking lots, open space activity, emergency generator, and loading docks would be limited to areas in the immediate vicinity of each related project. Although each related project could potentially impact an adjacent sensitive use, that potential impact would be localized to that specific area and would not contribute to cumulative noise conditions at or adjacent to the Project Site. **Therefore, the Project, considered together with related projects, would have a less than significant cumulative impact with regard to stationary source noises. No mitigation measures are required.**

(3) Groundborne Vibration and Groundborne Noise

Due to the rapid attenuation characteristics of groundborne vibration and distance from each of the related projects to the Project Site, there is limited potential for the Project to contribute to a cumulatively considerable construction- or operational-period structural impacts with respect to groundborne vibration or operational-period human annoyance impacts with respect to groundborne vibration and groundborne noise.

However, when considering related projects are located in the immediate vicinity of the Project Site, including Related Project No. 190 and Related Project No. 191, and the transportation improvement related projects, Related Project No. 193 and Related Project No. 194, construction of the Project could result in the exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise that could reach or exceed structural damage or human annoyance levels at off-site residences, resulting in a potentially significant impact for structural damage or human annoyance. As discussed in subsection b)(1)(b), construction groundborne vibration and groundborne noise structural damage and human annoyance impacts would be potentially significant at sensitive receptor locations R1 and R2. If simultaneous construction of the Project with one or more of these two related projects were to occur, the cumulative construction site groundborne vibration and groundborne noise impacts would occur. Thus, the Project's contribution to cumulative groundborne vibration and groundborne noise structural damage and human annoyance impacts would be cumulatively considerable when

considering related projects in the immediate vicinity of the Project Site. **Therefore, construction of the Project, considered together with related projects, would have a potentially significant cumulative groundborne vibration and groundborne noise structural damage and human annoyance impacts. Mitigation measures NOISE-MM-4 and NOISE-MM-5 are identified to reduce construction groundborne vibration and groundborne noise impacts related to structural damage and human annoyance on these receptors to less than significant levels, as discussed below.**

In addition, conservatively assuming *Zanja* No. 8 is located on the eastern side of the public mid-block alley close to the western side of the Project Site, construction of the Project, considered together with related projects, could potentially generate vibration levels that may result in damage to the *Zanja* and mitigation measures would be required. Mitigation measure NOISE-MM-4, as well as mitigation measures CULT-MM-1 through CULT-MM-5, as discussed in Section IV.C, *Cultural Resources*, are identified to reduce construction groundborne vibration impacts related to structural damage to less than significant levels, as discussed below.

f) Mitigation Measures

(1) On-Site Construction Noise and Vibration

The following mitigation measures would reduce on-site construction-related noise and vibration levels:

NOISE-MM-1: The Project shall provide temporary ground-level construction fencing equipped with noise blankets rated to achieve sound level reductions of at least 10 dBA between the Project Site and the ground-level noise sensitive receptors at sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site). These temporary noise barriers shall be used to block the line-of-sight between the construction equipment and the noise-sensitive receptors during early Project construction phases (up to the start of framing) when the use of noisy heavy equipment such as concrete saws, crawler tractors, and drill rigs, is prevalent.

Noise barriers shall be heavy-duty materials such as vinyl-coated polyester (VCP), at least 10 ounces per square yard and quilted for sound absorption, or other similarly effective materials. All noise barrier material types are equally effective, acoustically, if they have this density. The noise barrier shall have a minimum sound transmission class (STC) of 25 and noise reduction coefficient (NRC) of 0.75 or equivalent STC and NRC to achieve the 10 dBA reduction. STC is an integer rating of how well a wall attenuates airborne sound and NRC is a scalar representation of the amount of sound energy absorbed upon striking a wall.

NOISE-MM-2: During framing and vertical building construction, the Project shall provide temporary flexible noise curtains or noise blankets along the Project's vertical structures rated to achieve sound level reductions of at least 10 dBA to block the line-of-sight between noise producing equipment and the adjacent

residential land uses at sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site), where the use of such noise curtains or noise blankets would not interfere with the safety, integrity, and necessary construction activities of framing and vertical building construction.

NOISE-MM-3: Contractors shall ensure that all construction equipment, fixed or mobile, are equipped with properly operating and maintained noise shielding and muffling devices, consistent with manufacturers' standards. The contractor shall use muffler systems (e.g. absorptive mufflers) that provide a minimum reduction of 8 dBA compared to the same equipment without an installed muffler system, reducing maximum construction noise levels.

NOISE-MM-4: The operation of construction equipment that generates high levels of vibration, such as large bulldozers and loaded trucks, shall be prohibited within 80 feet of the property lines of existing residential uses adjacent to the Project Site. Instead, rubber-tired equipment not exceeding 400 horsepower shall be used in these areas during demolition, grading, and excavation operations within 80 feet from the sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site).

NOISE-MM-5: To reduce potential construction noise impacts and vibration impacts regarding human annoyance, the Applicant shall designate a construction relations officer to serve as a liaison with the adjacent mixed-use developments (R1 and R2). The liaison shall be responsible for responding to concerns regarding construction noise and vibration within 24 hours of receiving a complaint. The liaison shall ensure that steps will be taken to reduce construction noise and vibration levels as deemed appropriate and safe by the on-site construction manager. Such steps could include the use of noise absorbing curtains or blankets, vibration absorbing barriers, substituting lower noise or vibration generating equipment or activity, rescheduling of high noise or vibration-generating construction activity, or other potential adjustments to the construction program to reduce noise or vibration levels at the adjacent mixed-use developments (sensitive receptor locations R1 [mixed-use residential north of the Project Site] and R2 [mixed-use residential west of the Project Site]).

NOISE-MM-6: The Project shall provide a construction site notice that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public.

g) Level of Significance After Mitigation

(1) Construction Noise

Mitigation measure NOISE-MM-1 would provide at least a 10 dBA noise reduction from Project construction for ground-level noise sensitive receptors at locations R1, R2, R6 and R8. Mitigation measure NOISE-MM-2 would provide at least a 10 dBA noise reduction from noise-generating activities from inside the Project's vertical structures. However, these measures may not be effective at reducing noise at all of the upper floors of the noise sensitive receptors at R1 R2, R6, and R8. Implementation of mitigation measure NOISE-MM-3 would reduce noise levels from construction equipment at noise sensitive receptors, but even when added to the effects of NOISE-MM-1 and NOISE-MM- 2, would not reduce the construction noise impacts to a less than significant level. In addition, NOISE-MM-4 would require a construction relations officer to serve as a liaison to address community concerns regarding construction noise. Therefore, the Project's construction noise impacts, although temporary, would be significant and unavoidable.

Construction noise levels after implementation of mitigation at noise sensitive receptor locations are shown in **Table IV.J-16, *Mitigated Construction Noise Levels at Sensitive Receptor Locations***. As shown in Table IV.J-16, construction noise would still periodically exceed the LAMC standard of 74 dBA L_{eq} at sensitive receptor location R1 and of 75 dBA L_{eq} at sensitive receptor location R2 during different construction activities. There are no additional feasible measures to further reduce the temporary construction noise impacts to below the significance criteria. It is not technically feasible to implement noise barriers or barriers since noise sensitive receptors at sensitive receptor locations R1 and R2 are located 20 feet or more above ground levels. It is not feasible for the Project to restrict the use of all construction equipment near the Project Site boundary since these areas must be graded, paved, or otherwise improved to implement the Project. For similar reasons, cumulative construction noise impacts at receptor locations R6 and R8 would also be significant. Therefore, construction noise impacts would remain temporarily significant and unavoidable during periods of construction.

In addition, while construction noise impacts would be significant and unavoidable, construction noise levels fluctuate throughout a given workday as construction equipment move from one location to another within a project site. When construction equipment would be in use further away from a sensitive receptor location, construction noise level would be lower than the calculated values provided herein, which assumes construction equipment would be in use nearest to a sensitive receptor location. Exposure to fluctuating construction noise levels that would at times be lower than the noise levels shown in this assessment would not rise to the level that would result in hearing loss⁷⁵

⁷⁵ United States Department of Labor, Occupational Safety and Health Administration. Occupational Safety and Health Standards Part 1910, Standard 1910.95.

and the significant construction noise increase on a cumulative or Project-specific basis would not be expected to result in adverse health impacts.

(2) Construction Groundborne Vibration and Groundborne Noise

With implementation of mitigation measure NOISE-MM-4, NOISE-MM-5, and NOISE-MM-6, construction vibration impacts related to structural damage and human annoyance would be less than significant. Limiting the use of construction equipment generating high levels of vibration to no closer than 80 feet from vibration sensitive uses (R1 and R2) and using less vibration-generating equipment (e.g., rubber-tired small or medium bulldozers) within these areas and requiring a construction relations officer to serve as a liaison to address community concerns regarding construction vibration would result in vibration levels of 0.016 in/sec PPV or less and 71.8 VdB or less at the residential uses located to the east, north, and west of the Project Site. These levels would be below the vibration significance criteria of 0.5 in/sec PPV for structural damage and 72 VdB for human annoyance. Therefore, construction groundborne vibration and groundborne noise impacts for the residential uses would be mitigated to less than significant levels.

Assuming *Zanja* No. 8 is located on the eastern side of the public mid-block alley approximately 20 to 25 feet closer to the Project Site than the residential uses to the west of the alley, the mitigated vibration level (resulting from implementation of NOISE-MM-4) would be approximately 0.027 in/sec PPV at the eastern side of the alley, which would be much less than the significance threshold of 0.12 in/sec PPV. Furthermore, as discussed in Section IV.C, *Cultural Resources*, Mitigation Measures CULT-MM-1 through CULT-MM-5 would be required to be implemented for archeological resources, which requires monitoring by a Qualified Archeologist, halting or diverting ground-disturbing activities if archaeological resources (including *Zanja* No. 8) are unearthed, and documenting and reporting on archaeological resources (including *Zanja* No. 8) that are unearthed. With implementation of these vibration and archaeological resource mitigation measures, it is reasonable to conclude that vibration impacts to *Zanja* No. 8 would be reduced to less than significant levels.

(3) Operational Noise

Not applicable as impacts are less than significant without mitigation.

(4) Operational Groundborne Vibration and Groundborne Noise

Not applicable as impacts are less than significant without mitigation.

TABLE IV.J-16
MITIGATED CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTOR LOCATIONS

Representative Ambient Measurement Location	Construction Phases	Nearest Distance from Construction Activity to Property Line of Sensitive Receptor (ft.) ^a	Reference Construction Noise Level at Property Line of Off-Site Sensitive Location (dBA _{Leq})	Mitigation Measures		Significance Threshold ^b	Exceed Significance Threshold After Mitigation?
				NOISE-MM-3: Muffling Devices	Noise Levels After NOISE-MM-3		
R1	Demolition	5	90		82		Yes
	Site Preparation	5	98		90		Yes
	Grading/Excavation	5	91		83		Yes
	Drainage/Utilities/Trenching	20	85	-8	77	74	Yes
	Foundation/Concrete Pour	20	79		71		Yes
	Building Construction	20	83		75		Yes
	Paving	5	91		83		Yes
	Architectural Coating	20	78		70		Yes
R2	Demolition	20	84		76		Yes
	Site Preparation	20	91		83		Yes
	Grading/Excavation	20	85		77		Yes
	Drainage/Utilities/Trenching	35	85	-8	77	75	Yes
	Foundation/Concrete Pour	35	79		71		No
	Building Construction	35	83		75		Yes
	Paving	20	84		76		Yes
	Architectural Coating	35	78		70		No
R3	Demolition	280	63		55		No
	Site Preparation	280	63		55		No
	Grading/Excavation	280	61		53		No
	Drainage/Utilities/Trenching	295	62	-8	54	77	No
	Foundation/Concrete Pour	295	58		50		No
	Building Construction	295	60		52		No
	Paving	280	57		49		No
	Architectural Coating	295	55		47		No

Representative Ambient Measurement Location	Construction Phases	Nearest Distance from Construction Activity to Property Line of Sensitive Receptor (ft.) ^a	Reference Construction Noise Level at Property Line of Off-Site Sensitive Location (dBA _{Leq})	Mitigation Measures		Significance Threshold ^b	Exceed Significance Threshold After Mitigation?
				NOISE-MM-3: Muffling Devices	Noise Levels After NOISE-MM-3		
R4	Demolition	450	55		47		No
	Site Preparation	450	54		46		No
	Grading/Excavation	450	53		45		No
	Drainage/Utilities/Trenching	465	53	-8	45	73	No
	Foundation/Concrete Pour	465	50		42		No
	Building Construction	465	51		43		No
	Paving	450	48		40		No
	Architectural Coating	465	46		38		No
R5	Demolition	530	49		41		No
	Site Preparation	530	48		40		No
	Grading/Excavation	530	47		39		No
	Drainage/Utilities/Trenching	545	47	-8	39	79	No
	Foundation/Concrete Pour	545	44		36		No
	Building Construction	545	45		37		No
	Paving	530	42		34		No
	Architectural Coating	545	40		32		No
R6	Demolition	450	55		47		No
	Site Preparation	450	54		46		No
	Grading/Excavation	450	53		45		No
	Drainage/Utilities/Trenching	465	53	-8	45	84	No
	Foundation/Concrete Pour	465	50		42		No
	Building Construction	465	51		43		No
	Paving	450	48		40		No
	Architectural Coating	465	46		38		No

Representative Ambient Measurement Location	Construction Phases	Nearest Distance from Construction Activity to Property Line of Sensitive Receptor (ft.) ^a	Reference Construction Noise Level at Property Line of Off-Site Sensitive Location (dBA _{Leq})	Mitigation Measures		Significance Threshold ^b	Exceed Significance Threshold After Mitigation?
				NOISE-MM-3: Muffling Devices	Noise Levels After NOISE-MM-3		
R7	Demolition	480	49		41		No
	Site Preparation	480	49		41		No
	Grading/Excavation	480	48		40		No
	Drainage/Utilities/Trenching	495	47	-8	39	77	No
	Foundation/Concrete Pour	496	44		36		No
	Building Construction	495	46		38		No
	Paving	480	43		35		No
	Architectural Coating	495	40		32		No
R8	Demolition	300	57		49		No
	Site Preparation	300	58		50		No
	Grading/Excavation	300	56		48		No
	Drainage/Utilities/Trenching	315	56	-8	48	71	No
	Foundation/Concrete Pour	315	53		45		No
	Building Construction	315	54		46		No
	Paving	300	52		44		No
	Architectural Coating	315	49		41		No

SOURCE: ESA, 2018.

IV.K Population and Housing

1. Introduction

This section analyzes the potential effects of the Project's contribution to population, and housing growth within the geographical boundaries of the City of Los Angeles (City) taking into account population and housing policies established in the Central City Community Plan (Community Plan). Project effects on these demographic characteristics are compared to adopted and growth forecasts and relevant policies and programs regarding planning for future development to determine whether the Project would be inconsistent with adopted growth forecasts in a way that could result in negative environmental effects associated with unplanned growth. Supporting documentation including calculations of cumulative population and housing growth is provided in Appendix L, *Population, Housing and Employment Data*, of this Draft EIR. Potential growth-inducing impacts of the Project are further addressed in Chapter VI, *Other CEQA Considerations*.

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) *California Government Code Section 65583 and 65584(a)(1) (AB-2158)*

Section 65583 of the California Government Code requires cities and counties to prepare a housing element, as one of seven state-mandated elements of the General Plan, with specific direction on its content. Pursuant to Section 65584(a)(1) the California Department of Housing and Community Development (HCD) reviews every local government's housing element to determine whether it complies with state law. HCD is responsible for determining the regional housing needs assessment (segmented by income levels) for each region's planning body known as a "council of governments" (COG), the Southern California Association of Governments (SCAG) being the COG serving the Southern California area. HCD prepares an initial housing needs assessment and then coordinates with each COG in order to arrive at the final regional housing needs assessment. To date, there have been four previous housing element update "cycles." California is now in its fifth "housing-element update cycle." The SCAG Regional Housing Needs Assessment (RHNA) and the City's General Plan Housing Element are discussed further below.

(b) *Senate Bill 375 (SB 375, Steinberg) (Chapter 728, Statutes of 2008)*

Senate Bill (SB) 375 (Chapter 728, Statutes of 2008) established mechanisms for the development of regional targets for reducing greenhouse gas emissions from passenger vehicles and light duty trucks. Under SB 375, the regional greenhouse gas (GHG) reduction targets for the passenger vehicle and light-duty trucks guides the regional Metropolitan Planning Organizations in the preparation of growth forecasts for population, households and employment.¹

Under SB 375, the reduction target must be incorporated within that region's Regional Transportation Plan (RTP) in a Sustainable Communities Strategy (SCS). As discussed further below, on April 7, 2016, SCAG adopted its 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS), which is an update to the previous 2012 RTP/SCS.² Using growth forecasts and economic trends, the RTP/SCS provides a vision for transportation throughout the region for the next 25 years that achieves the statewide reduction targets; and in so doing identifies the amount and location of growth expected to occur within the region.

(2) Regional

(a) *Southern California Association of Governments*

The Project Site is located within the jurisdiction of SCAG, a Joint Powers Agency established under California Government Code Section 6502 et seq. Pursuant to federal and State law, SCAG serves as a Council of Governments, a Regional Transportation Planning Agency, and the Metropolitan Planning Organization (MPO) for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties. SCAG's mandated responsibilities include developing plans and policies with respect to the region's population growth, transportation programs, air quality, housing, and economic development. Specifically, SCAG is responsible for preparing the Regional Comprehensive Plan (RCP), RTP/SCS, and RHNA, in coordination with other State and local agencies. These documents include population, employment, and housing projections for the region and its 13 subregions. The Project Site is located within the Los Angeles Subregion.

SCAG is tasked with providing demographic projections for use by local agencies and public service and utility agencies in determining future service demands. Projections in the SCAG 2016 RTP/SCS serve as the bases for demographic estimates in this analysis of Project consistency with growth projections. The findings regarding growth in the region

¹ California Air Resources Board, Sustainable Communities, 2018, <https://www.arb.ca.gov/cc/sb375/sb375.htm>. Accessed February 22, 2018.

² Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS), <http://scagrtpscsc.net/Documents/2016/final/f2016RTPSCS.pdf>. Accessed February 22, 2018.

are consistent with the methodologies prescribed by SCAG and reflect SCAG goals and procedures.

SCAG data is periodically updated to reflect changes in development activity and actions of local jurisdictions (e.g. zoning changes). Through these updates, public agencies have advance information regarding changes in growth that must be addressed in planning for their provision of services. Changes in the growth rates are reflected in the new projections for service and utilities planning through the long-term time horizon.

In addition, SCAG establishes policies pertaining to regional growth and efficient development patterns to reduce development impacts on traffic congestion and related increases in air quality emissions. These policies are discussed in detail in Section IV.H, *Land Use and Planning*.

(b) *Regional Transportation Plan/Sustainable Communities Strategy*

In April 2016, SCAG's Regional Council adopted the 2016-2040 RTP/SCS. As previously discussed, the 2016-2040 RTP/SCS presents the transportation vision for the region through the year 2040 and provides a long-term investment framework for addressing the region's transportation system and related challenges. Also as previously discussed, the RTP/SCS contains baseline socioeconomic projections that are the basis for SCAG's transportation planning, and the provision of services by other regional agencies. It includes projections of population, households, and employment forecasted for 2020, 2035, and 2040 at the regional, county, and local jurisdictional levels, and Traffic Analysis Zones (TAZ) that provide small area data for transportation modeling.³

The RTP/SCS identifies the amount of expected growth in the region and allocates the expected distribution of that growth. The distribution reflects goals cited in the 2016-2040 RTP/SCS:⁴

- Aligning the plan investments and policies with improving regional economic development and competitiveness;
- Maximizing mobility and accessibility;
- Ensuring travel safety and reliability for all people and goods in the region;
- Preserving and ensuring a sustainable regional transportation system;
- Maximizing productivity of the transportation system;
- Protecting the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking);

³ Southern California Association of Governments, 2016 RTP/SCS, Demographics & Growth Forecast Appendix, http://scagrtpscscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf Accessed February 22, 2018.

⁴ Southern California Association of Governments, 2016 RTP/SCS, page 9.

- Actively encouraging and creating incentives for energy efficiency, where possible;
- Encouraging land use and growth patterns that facilitate transit and non-motorized transportation; and
- Maximizing the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

The 2016-2040 RTP/SCS recognizes the need to provide an integrated approach to protect, maximize the productivity of, and strategically expand the region's transportation system. An important component of this strategy is "Smart Land Use."⁵ SCAG has been attempting to integrate land use and transportation by working with subregions and local communities to increase development densities near transit and improve the jobs/housing balance.⁶ Smart land use strategies encourage walking, biking, and transit use, thereby reducing vehicular demand, saving travel time, reducing pollution, and ultimately improving health.

A component of the SCAG strategy has been to focus new growth in High-Quality Transit Areas (HQTAs), Downtown Los Angeles being an integral component of this strategy.⁷ HQTAs are defined as areas located within one-half mile of a fixed guideway transit stop or bus transit corridor.⁸ While HQTAs account for only 3 percent of the total land area in SCAG's region, HQTAs are expected to accommodate 46 percent and 55 percent of future household and employment growth, respectively, between 2012 and 2040.⁹

(c) *Regional Housing Needs Assessment*

SCAG prepares the RHNA mandated by State law so that local jurisdictions can use this information during their periodic update of the General Plan Housing Element. The RHNA identifies the housing needs for very low income, low income, moderate income, and above moderate-income groups, and allocates these targets among the local jurisdictions that comprise SCAG. The most recent RHNA allocation, the "5th Cycle RHNA Allocation Plan," was adopted by SCAG's Regional Council on October 4, 2012.¹⁰ This allocation identifies housing needs for the planning period between January 2014 and October 2021. Local jurisdictions are required by State law to update their General Plan Housing Elements based on the most recently adopted RHNA allocation.

⁵ Southern California Association of Governments, 2016 RTP/SCS, page 85.

⁶ Southern California Association of Governments, 2016 RTP/SCS, page 75.

⁷ Southern California Association of Governments, 2016 RTP/SCS, page 2.

⁸ Southern California Association of Governments, 2016 RTP/SCS, page 20.

⁹ Southern California Association of Governments, 2016 RTP/SCS, page 8.

¹⁰ Southern California Association of Governments, Regional Housing Needs Assessment, 2012, <http://rtpscs.scag.ca.gov/Pages/Regional-Housing-Needs-Assessment.aspx>. Accessed February 22, 2018.

(3) Local

(a) *City of Los Angeles General Plan*

The City General Plan was prepared pursuant to State law to guide future development and to identify the community's environmental, social, and economic goals. The General Plan sets forth goals, objectives, and programs to provide a guideline for day-to-day land use policies and to meet the existing and future needs and desires of the community, while at the same time integrating a range of State-mandated elements including Transportation, Noise, Safety, Housing, and Open Space/Conservation. The General Plan also includes the General Plan Framework Element (General Plan Framework), discussed below, and the Community Plan, which guides land use at the community level for the area surrounding the Project Site.

(i) *City of Los Angeles General Plan Framework*

The General Plan Framework establishes the conceptual basis for the City's General Plan.¹¹ It sets forth a Citywide comprehensive long-range growth strategy and defines Citywide policies regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure, and public services. General Plan Framework land use policies are implemented at the community level through the City's Community Plans and Specific Plans.

The General Plan Framework also includes population, housing and employment projections to guide future Community Plan amendments. However, the General Plan Framework makes clear that its population forecasts are estimates for guiding amendments: "... it [Framework Element] is not dependent upon these population levels or distributions for its implementation. It does not mandate specific levels of growth for any specific area (neither minimums nor caps)."¹²

The General Plan Framework housing chapter states that housing production has not kept pace with the demand for housing. According to the General Plan Framework, the City has insufficient vacant properties to accommodate the projected population growth and the supply of land zoned for residential development is constrained.¹³ The Housing Chapter states that new residential development will require the recycling and/or intensification of existing developed properties.¹⁴ The General Plan Framework states that the City must strive to meet the housing needs of the population in a manner that contributes to stable, safe, and livable neighborhoods, reduces conditions of overcrowding, and improves access to jobs and neighborhood services, particularly by

¹¹ City of Los Angeles, The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, 1995, <http://cityplanning.lacity.org/cwd/framwk/contents.htm>. Accessed February 22, 2018.

¹² City of Los Angeles, The Citywide General Plan Framework, page 2-2.

¹³ City of Los Angeles, The Citywide General Plan Framework, Housing Chapter, page 4-1.

¹⁴ City of Los Angeles, The Citywide General Plan Framework, Housing Chapter, page 4-1.

encouraging future housing development near transit corridors and stations.¹⁵ The Housing Chapter includes goals, objectives and policies to guide future development.¹⁶ In particular, Policy 4.1.1 states that the City should “[p]rovide sufficient land use and density to accommodate an adequate supply of housing units by type and cost within each City subregion to meet the 20-year projections of housing needs.” Objective 4.2 “[e]ncourage[s] the location of new multi-family housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods.”

(ii) *General Plan Housing Element*

The Housing Element of the General Plan is prepared pursuant to State law and provides planning guidance in meeting the housing needs identified in SCAG’s RHNA. The Housing Element identifies the City’s housing conditions and needs, establishes the goals, objectives, and policies that are the foundation of the City’s housing and growth strategy, and provides the array of programs the City intends to implement to create sustainable, mixed-income neighborhoods. The 2013-2021 Housing Element, an update to the previous 2006-2014 Housing Element that is based on the updated 2012 RHNA, was adopted by the City Council on December 3, 2013.¹⁷ Policies to note include Policy 1.1.3 that states the City should “[f]acilitate new construction and preservation of a range of housing types that address the particular needs of the city’s households.”¹⁸ Also, Policy 1.3.5 states that the City should “[p]rovide sufficient land use and density to accommodate an adequate supply of housing units by type and cost within the City to meet the projections of housing needs, according to the policies and objectives of the City’s Framework Element of the General Plan.”¹⁹ The Housing Element carries forward the goals of the Framework Element Housing chapter to encourage the development of livable neighborhoods and preservation of the housing supply.

Further, Chapter 1, Housing Needs Assessment, identifies the City’s share of the housing needs established in the RHNA. In particular, Table 1.29, City of Los Angeles Regional Housing Needs Assessment Allocation, indicates that the City’s needs assessment allocation includes 82,002 housing units.²⁰ The identified housing needs represent targets to be met and do not establish development caps. The allocation of 82,002 housing units represents one-fifth of the total need of 412,721 housing units identified for the six-county SCAG region. The percentage increased from the previous housing needs

¹⁵ City of Los Angeles, The Citywide General Plan Framework, Housing Chapter, page 4-2.

¹⁶ City of Los Angeles, The Citywide General Plan Framework, Housing Chapter, pages 4-4 and 4-6.

¹⁷ City of Los Angeles Department of City Planning, Housing Element 2013-2021, https://planning.lacity.org/HousingInitiatives/HousingElement/Text/HousingElement_20140321_HR.pdf. Accessed February 22, 2018.

¹⁸ City of Los Angeles, Housing Element of the General Plan, Chapter 6, page 6-6.

¹⁹ City of Los Angeles, Housing Element of the General Plan, Chapter 6, page 6-8.

²⁰ City of Los Angeles Department of City Planning, Housing Element 2013-2021, page 1-79.

cycle and City proportion, which was one-sixth of the regional need for the same types of units.

The Housing Element also establishes quantifiable objectives regarding the number of new housing units it anticipates being constructed. The Housing Element's objective for new housing is 59,559 units.²¹

(b) *Central City Community Plan Area*

(i) *Current Community Plan*

The Land Use Element of the City's General Plan includes 35 community plans. Community plans are intended to provide an official guide for future development and propose approximate locations and dimensions for land use. The community plans establish standards and criteria for the development of housing, commercial uses, and industrial uses, as well as circulation and service systems. The community plans implement the City's General Plan Framework at the local level. The community plans consist of both text and an accompanying generalized land use map. The community plans' texts express goals, objectives, policies, and programs to address growth in the community. The community plans' maps depict the desired arrangement of land uses as well as street classifications and the locations and characteristics of public service facilities. Per State law, each community plan must be consistent with the other elements and components of the General Plan and, thus, incorporates information from these plans.

The Project is located within the Community Plan Area, which was adopted January 8, 2003.²²

The Community Plan includes residential and commercial objectives and policies that establish a development concept for its neighborhoods and districts. Key provisions regarding the preferred development in the Project vicinity include the following:²³

(a) Residential Objectives

Objective 1-1: To promote development of residential units in South Park.

Objective 1-2: To increase the range of housing choices available to Downtown employees and residents.

(b) Commercial Objective

Objective 2-4: To encourage a mix of uses which create an active, 24-hour downtown environment for current residents and which would also foster increased tourism.

²¹ City of Los Angeles Department of City Planning, Housing Element 2013-2021, page c-xxi.

²² City of Los Angeles Department of City Planning, Central City Community Plan, page III-1.

²³ City of Los Angeles Department of City Planning, Central City Community Plan, page III-2.

(ii) *Community Plan Update – DTLA 2040 Plan*

The Department of City Planning is in the process of drafting updates to the Central City Community Plan, as well as the Central City North Community Plan, which provide a collective vision for the Downtown area. According to the Draft DTLA 2040 Plan projections, approximately 125,000 residents, 70,000 housing units, and 55,000 jobs would be added to Downtown (the area combined between the two plans) by the year 2040.²⁴

Drafts of these plan updates have been circulated, and the primary objectives of the updated plans will be to:

- Ensure that Downtown can continue to grow in a sustainable, equitable, healthy, and inclusive manner.
- Reinforce the role of Downtown as the primary jobs center for the City, County, and the Southern California region.
- Expand and support a growing residential population.
- Celebrate and reinforce the character of each individual neighborhood.
- Promote a transit, bicycle, and pedestrian-friendly environment.
- Refine and expand a system that links development with public benefits to deliver community amenities in the Downtown Plan Area.

The DTLA 2040 Community Plan Update has not been adopted, and the components of it that would be approved are uncertain at this time. It is nonetheless discussed here to inform the public regarding future plans for the Downtown area. Until the DTLA 2040 Plan is adopted, if at all, the Central City Community Plan continues to be the applicable land use element of the City's General Plan applicable to the Project Site.

(c) *Green New Deal (Sustainable City pLAn 2019)*

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 in order to advance economic, environmental, and equity objectives.²⁵ L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015.²⁶ It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

²⁴ Growth projections per the City of Los Angeles, DTLA 2040, About This Project, www.dtl2040.org/, accessed February 12, 2019.

²⁵ City of Los Angeles. LA's Green New Deal, 2019. http://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf, accessed September 3, 2019.

²⁶ City of Los Angeles, Sustainable City pLAn, April 2015, <http://plan.lamayor.org/wp-content/uploads/2017/03/the-plan.pdf>. Accessed July 2018

The Housing & Development chapter of the Green New Deal includes the following targets for the number of new housing units to be provided within the City:

- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters.

(d) *Greater Downtown Housing Incentive Area*

The Project Site is located within the Greater Downtown Housing Incentive Area, which was established by Ordinance No. 179,076, effective September 23, 2007. Ordinance No. 179,076 was approved for the purpose of encouraging urban in-fill development in HQTAs; and it modified several code sections for projects within the Greater Downtown area. Among its provisions, it added a requirement that all projects comply with the Urban Design Standards and Guidelines;²⁷ it eliminated maximum unit per lot area density limits (within floor area ratio [FAR] limits); and amended the lot area criteria for purposes of calculating project density.

b) Existing Conditions

(1) On-Site Conditions

The Project Site is currently developed with five commercial buildings (containing 35,651 square feet of rental area), 3,424 square feet of paved parking lot area and 3,506 square feet of right of way and alley easement area. The estimated employment from the existing businesses is approximately 35 employees.²⁸

(2) Population, Housing, and Employment Estimates

Project impacts at the Citywide levels are considered in this analysis. Current and future projected population, housing, and employment estimates for these geographies are based on data included in the 2016-2040 RTP/SCS, which is described in greater detail below.

The 2016-2040 RTP/SCS includes growth projections for populations, households, and employment for regional, county, and local jurisdictional areas and TAZs.²⁹ The 2016-2040 RTP/SCS reports the demographic data for years 2012, 2020, 2035, and 2040. The

²⁷ Los Angeles Municipal Code Section 12.22, Subdivision 30, updated this reference to implement the standards and guidelines in the Downtown Design Guide, https://planning.lacity.org/Zone_code/2000zc/2000pdf/15exc.pdf. Accessed August 15, 2019.

²⁸ Based on the estimates provided in the impact analysis below. Refer to Table IV.K-2.

²⁹ Southern California Association of Governments, 2016 RTP/SCS, Demographics & Growth Forecast Appendix.

2016-2040 RTP/SCS forecasts represent the likely growth scenario for the Southern California region in the future, taking into account recent and past demographic and economic trends, reasonable key technical assumptions, and local or regional growth policies. These baseline socioeconomic projections are the basis for SCAG's long-term transportation planning and the provision of services by other regional agencies. The 2017 Project baseline population and growth projections for 2023 (Project buildout year) and 2040 (SCAG Projection Horizon) are shown in **Table IV.K-1, *Projected Population, Housing and Employment Estimates for the City of Los Angeles***, and discussed below.³⁰

**TABLE IV.K-1
PROJECTED POPULATION, HOUSING AND EMPLOYMENT ESTIMATES
FOR THE CITY OF LOS ANGELES**

	2023 (Project Buildout Year)				2040 (SCAG Projection Horizon)		
	Project 2017 Baseline	Projected	Total Growth	Percentage Increase as Compared to 2017	Projected	Total Growth	Percentage Increase as Compared to 2017
Population	3,952,687	4,102,100	149,413	3.8%	4,609,400	656,713	16.6%
Housing	1,397,938	1,476,900	78,962	5.7%	1,690,300	292,362	20.9%
Employment	1,823,338	1,940,420	117,082	6.4%	2,169,100	345,762	19.0%

SOURCE: Information in this table is based on data that were prepared for the 2016-2040 RTP/SCS, and reported for 2012, 2020, 2035, and 2040, and published by SCAG. Data for 2017 and 2023 was interpolated from the data published by SCAG and compiled by ESA, 2018.

(a) Population

As indicated in Table IV.K-1, the City population is expected to grow by 149,413 people or 3.8 percent from the 2017 baseline year to 2023 (Project Buildout year). By 2040, the horizon year of the SCAG projections, the population is expected to increase in the City by 656,713 people or 16.6 percent during that same period.

(b) Housing

As indicated in Table IV.K-1, the number of households/occupied housing units is expected to increase in the City by 78,962 units or 5.7 percent from 2017 to 2023. By 2040, the number of households in the City is expected to grow by 292,362 units or 20.9 percent during that same period.

³⁰ The 2017 baseline estimates were determined by interpolating from data presented in the Southern California Association of Governments projections based on values provided for 2012 and 2020. The 2017 estimate is calculated by: $[(2020 \text{ data} - 2012 \text{ data}) / 8 \text{ years}] * 5 \text{ years}] + 2012 \text{ data} = 2017 \text{ baseline estimate}$. The 2023 estimate is calculated by: $[(2035 \text{ data} - 2020 \text{ data}) / 15 \text{ years}] * 3 \text{ years}] + 2020 \text{ data} = 2023 \text{ buildout estimate}$. The 2040 estimates are provided by Southern California Association of Governments.

(c) *Employment*

As shown in Table IV.K-1, the number of employees in the City is expected to grow by 117,082 employees or 6.4 percent from 2017 to 2023. By 2040, the number of workers in the City is expected to grow by 345,762 workers or 19.0 percent.

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's impacts related to population and housing in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as its thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

In accordance with State CEQA Guidelines Appendix G, the Project would have a significant impact related to population and housing if it would:

- a) Induce substantial unplanned population growth in an area, either directly (for example by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or***
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere; or***

The L.A. CEQA Thresholds Guide identifies the following criteria to evaluate population and housing impacts:

Population and Housing Growth

- The degree to which the project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of project occupancy/buildout, and that would result in an adverse physical change in the environment;
- Whether the project would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan; and
- The extent to which growth would occur without implementation of the project.

b) Methodology

The analysis of Population and Housing impacts evaluates whether the Project's contributions to population, housing, and employment growth are consistent with the future growth projections and related policies outlined above.

The Project's residential population was calculated based on the Citywide Person Per Household Factor for multi-family units, i.e., 2.43 people per unit.³¹ Use of this Citywide factor is appropriate for gauging growth within the City overall in order to compare Citywide development with SCAG regional and sub-regional growth projections. The average takes into account larger household sizes in some areas and of the City and smaller household sizes in other areas. Given the Project's location in the Community Plan Area, and its smaller mix of unit sizes, the Project's population would likely be lower than the more conservative Citywide estimate. Therefore, population-related impacts on local services would be less when calculated under the expected smaller household size.

The number of employees was calculated using employee generation factors developed for a range of land uses by the Los Angeles Unified School District (LAUSD) in its 2016 Developer Fee Justification Study.³²

The projections of future population and housing used in this analysis are based on data prepared by SCAG for the 2016-2040 RTP/SCS. The 2016-2040 RTP/SCS reports demographic data for 2012, 2020, 2035, and 2040, and more in-depth data were requested and received from the City for 2020, 2035, and 2040 projections for population, housing, and employment. The 2016-2040 RTP/SCS forecasts represent the likely growth scenario for the Southern California region in the future, taking into account recent and past trends, reasonable key technical assumptions, and local or regional growth policies.³³

c) Project Characteristics

No specific Project Design Features are proposed with regard to population and housing.

d) Project Impacts

Threshold a) Would the Project induce substantial unplanned population growth in an area, either directly (for example by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? Less than Significant Impact.

³¹ The average household size reflects the Citywide Person Per Household factor for multi-family units, provided by the Department of City Planning Demographics Unit, based upon information published in the 2016 American Community Survey.

³² Los Angeles Unified School District, 2016 Developer Fee Justification Study, March 2017. Accessed February 22, 2018.

³³ Southern California Association of Governments, 2016 RPT/SCS, Demographics & Growth Forecast Appendix, page 1.

(1) Construction

The Project would link with and tie into existing infrastructure in the Project area. New infrastructure that would be required, such as service connections to local water and sewer network and electricity and natural gas utilities, would be sized to serve only the Project's needs. No new roadways would be created as part of the Project. The Project would not open any new areas not already served by infrastructure. Project-related construction of utility infrastructure, therefore, would not have population growth inducing effects.

Construction of the Project itself would provide short-term employment for workers who are expected to be hired from a large mobile regional construction workforce that already lives and works within the Los Angeles metropolitan region (e.g., County) and that moves from project to project. As discussed in Section IV.L, *Transportation and Traffic*, of this Draft EIR, the number of construction workers needed would vary from an estimated 25 workers per day during demolition and site preparation, to a maximum of approximately 535 workers per day during later, more intensive construction phases. Construction workers are not expected to relocate their households permanently from other regions in response to short-term Project-related construction employment opportunities. Consequently, population growth from construction employees would not be substantial.

(2) Operations

(a) *Projections of Regional Growth*

During Project operations the Project Site would be developed with 794 residential dwelling units, which would include a range of unit sizes with studio, one-, two- and three-bedroom units with more than sixty percent of the units being 1-bedroom or smaller in size. The existing five commercial buildings would be removed for the development of the Project. The Project would also develop 12,504 square feet of commercial space. As stated in Chapter II, *Project Description*, of this Draft EIR, calculations conservatively assume that all of the commercial space would be used for restaurant uses. The Project's contribution to residential population, housing stock, and employment opportunities is summarized in **Table IV.K-2, Project Increases in Residential Population, Housing, and Employment Population**.

TABLE IV.K-2
PROJECT INCREASES IN RESIDENTIAL POPULATION, HOUSING AND EMPLOYMENT POPULATION

Proposed Uses			
<u>Housing Units and Residential Population</u>			
Total Housing Units		Average Household Size ^a	Residential Population
794		2.43	1,929
<u>Employees</u>			
Use	Amount (square feet)	Employment Generation Factor (per square feet) ^b	Employment Population
Ground-floor Restaurant	12,504	0.00271	34
Residential Support	-- ^c	-- ^c	50
Proposed Subtotal			84
Existing Uses			
Manufacturing	14,653	0.00135	20
Retail	5,171	0.00271	15
Existing Subtotal			35
Net New Employees			49

SOURCES:

^a The average household size reflects the Citywide Person Per Household factor used by the City for multi-family units based on information in the 2016 American Community Survey. (

^b The employee generation factors are taken from the Los Angeles Unified School District, 2016 Developer Fee Justification Study, March 2017. As there is no restaurant specific factor, the Neighborhood Shopping Centers factor was used. The Industrial Parks factor was used for the existing Manufacturing uses.

^c The Applicant estimates that the residential development would include a staff of approximately 50 on-site employees for Project operations, inclusive of a large number of security personnel, and personnel for such uses as leasing office and maintenance.

SOURCE: ESA, 2018

The projected Project increases are compared to growth projections in the SCAG 2016-2040 RTP/SCS for the City in **Table IV.K-3, Project Population, Housing and Employment Growth Within the City of Los Angeles**, and discussed below. SCAG monitors new development within its jurisdictions and updates its RTP/SCS's at four-year intervals to provide up-to-date data for planning infrastructure and public service needs.³⁴

³⁴ Southern California Association of Governments, 2016-2014 RTP/SCS, page 1.

TABLE IV.K-3
PROJECT POPULATION, HOUSING AND EMPLOYMENT GROWTH WITHIN THE CITY OF LOS ANGELES

	Project Increase^a	SCAG Projected Growth^b	Project Percentage of Growth
Population			
2017 - 2023 Buildout	1,929	149,413	1.3%
2017 - 2040 Projection Horizon	1,929	656,713	0.3%
Households			
2017 - 2023 Buildout	794	78,962	1.0%
2017 - 2040 Projection Horizon	794	292,362	0.3%
Employment			
2017 - 2023 Buildout	49	117,082	0.04%
2017 - 2040 Projection Horizon	49	345,762	0.01%

^a From Table IV.K-2.

^b From Table IV.K-1

SOURCE: SCAG 2016-2040 RTP/SCS Projections.

SCAG's 2016-2040 RTP/SCS provides short-term and long-term population estimates for the City. As shown in Table IV.K-1 above, the population in the City was estimated to be 3,952,687 in 2017 and is projected to be 4,102,100 in 2023, the Project's projected buildout year. Based upon the Citywide per person household size for multi-family units, the factor used in this analysis, the Project population would be 1,929 people. However, given the Project's Downtown location with smaller household sizes than the Citywide average, the actual Site population may be smaller than this value.³⁵ The Draft EIRs more conservative estimate of 1,929 residents upon anticipated buildout would comprise approximately 1.3 percent of SCAG's estimated population growth by 2023. SCAG's longer-term projected population increase for the City for 2040 is an additional 656,713 residents for a total residential population of 4,609,400, of which the Project's population at 2.43 per household would comprise approximately 0.3 percent.

Likewise, as shown in Table IV.K-3, the Project's proposed 794 housing units would comprise 1.0 percent of SCAG's estimated increase of 78,962 households between the Project's 2017 baseline and 2023 buildout years, within the City and 0.3 percent of

³⁵ At the time of the 2010 Census, the population living in households within the Central City Community Plan area was 32,730 and there were 20,080 occupied housing units. This reflects an average household size of 1.63 persons per household. 2010 Census data for the Central City Community Plan area was provided in an e-mail from Jack Tsao to Christina Toy of the Los Angeles Department of City Planning, December 10, 2015. Included in Appendix L of this Draft EIR.

SCAG's 2040 estimated increase of 292,362 households within the City. Further, the Project's increase in employee population of 49 employees would comprise 0.04 percent of SCAG's year 2023 estimated increase of 117,082 employees within the City and 0.01 percent of SCAG's 2040 estimated increase of 345,762 employees within the City.

Therefore, the Project's residential population, number of housing units, and employee population represent small increments of the projected growth. Thus, this growth is planned and would not represent induced or unplanned growth beyond that otherwise occurring.

(b) Applicable Policies

(i) General Plan Housing Element

As previously discussed, the purpose of the General Plan Housing Element is to provide guidance for meeting the City's need for housing per the allocation defined in the RHNA. The 2013–2021 Housing Element cites SCAG's identified need for 82,002 new housing units Citywide for the period of 2014-2021, of which 35,412 units would be for above-moderate-income households. It also establishes quantifiable objectives that are targets to be met to help meet housing needs. The targeted objectives include the provision of 59,559 units, of which 46,500 units would be for above moderate income households.³⁶ As these objectives are targets to be met they do not establish development caps. The Project's 794 proposed residential units would contribute to meeting above-moderate income housing needs in the City. As such, the Project's proposed housing units would help achieve the City's Housing Element objectives for these types of households.

(ii) 2016 RTP/SCS

(a) Development Pattern

As stated above, a major consideration under the 20162-40 RTP/SCS is the location of population increases. The Downtown area is currently highly urbanized with a substantial infrastructure system in place to meet the needs of current and anticipated development, consistent with growth patterns identified in applicable SCAG and City plans.

The Project's development would support the attainment of the RTP/SCS policies by locating its increased population density in an area that is well served by existing regional transit, including the Pico Boulevard Station and 7th Street/Metro Center Station. The Project Site is located within a HQTAs that is targeted for future growth because of the multiple environmental benefits associated with providing high-density development along transit corridors.³⁷ Therefore, the Project growth that is occurring contributes to the

³⁶ City of Los Angeles, General Plan Housing Element, adopted December 3, 2013, pages 6-4 to 6-5.

³⁷ Southern California Association of Governments, High Quality Transit Areas in the SCAG Region (2012-2014), http://scagrtpsc.net/SiteAssets/ExecutiveSummary/assets/resources/Exhibit5-1_HighQualityTransitAreaInTheSCAGRegionFor2040Plan.pdf. Accessed February 22, 2018.

pattern that was taken into account in preparation of the 2016-2040 RTP/SCS and would be inducing a type of growth that is anticipated.

(b) Jobs/Housing Balance

Job/Housing balance is a performance measure used by SCAG in evaluating whether growth patterns are occurring in a manner that reduces vehicle miles traveled, thus reducing travel times for all populations.³⁸ It is also a measure of how the growth projections reflect the policies upon which they are based. There is no specific requirement for a particular jobs/housing ratio in any given community. However, planning policies encourage infill growth, and demarcate growth projections for the planning of services and utilities, whereby the jobs/housing ratio of individual communities moves towards balance with the regional ratio. The jobs/housing ratio for the entire SCAG region is approximately 1.35.³⁹ That is, there are approximately 1.35 jobs for each household unit. Large variations from this ratio in local communities indicate whether the communities are housing-rich (i.e. bedroom communities) or employment-rich. Such communities require longer commuting distances between home and work.

Based on the 2017 employment and household estimates presented in Table IV.K- 1, above, the 2017 jobs/housing ratio in the City is 1.30. While the City jobs/housing ratio is close to the regional average, the distribution of population within the City is not proportioned evenly. In particular, the Downtown area is disproportionately employment-rich. The estimated 2017 jobs/housing ratio in Downtown area is 7.3, which is substantially greater than the City and regional averages.⁴⁰

The Project would result in a slight net increase in the number of employees on the Project Site of approximately 49 employees and would contribute a large number of new housing opportunities in the employment-rich Downtown area. The jobs to housing ratio for the Project itself would be 0.06. Thus, the Project would have a very small effect on the overall employment projections for the City and Downtown areas but would contribute to an improvement in the jobs/housing balance of the Downtown and City.

(c) Summary

As described above, the Project would not open a new area to development through the provision of extended infrastructure. Further, the Project would add new population to the Project Site, but this population is within the planned amounts and planned location anticipated in growth projections and growth policies within SCAG and City plans.

³⁸ Southern California Association of Governments, 2016-2040 RTP/SCS, Adopted April 2016. Performance Measure 6, page 169.

³⁹ Southern California Association of Governments, 2016 RTP/SCS, Demographics & Growth Forecast Appendix. Based on 2015 employment of 8,006,000 as presented in Table 8, Regional Population and Employment by County, page 18; and 5,947,000 households as presented in Table 4, Characteristics of Regional Households, page 8.

⁴⁰ Estimated jobs/housing ratio for the Community Plan Area, based upon SCAG projections aggregated to the Community Plan area, by the Department of City Planning Demographics Unit, and interpolated to year 2017 by ESA. Projections are based on the 2016-2040 RTP/SCS that are included in Appendix L, of this Draft EIR.

Therefore, the Project would not cause substantial induced unplanned growth that is not expected and that has been taken into account in the planning of services and utilities. **Therefore, the Project would not induce substantial population growth indirectly through the extension of roads or other infrastructure, would not result in unplanned growth, and impacts would be less than significant; therefore, no mitigation is required.**

Threshold b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? No Impact.

No dwelling units are currently located on the Project Site. Because no people or housing would be displaced by the Project development, the construction of replacement housing elsewhere would not be necessary. Further, the Project would not displace any existing residential population. The few employees currently working at the Project Site do not live on the Project Site; and therefore, the Project would not displace substantial numbers of people, necessitating construction of replacement housing elsewhere. **No impacts with regards to construction of replacement housing or people affected by the relocation of housing elsewhere would occur and no mitigation is required.**

e) Cumulative Impacts

(a) Population Growth

The cumulative impact analysis addresses the impacts of known and anticipated development in the Project Site area in combination with the Project, with respect to the anticipated amount, timing, and distribution of population, housing, and employment growth. The 195 related projects (four of which are infrastructure projects) identified by the City are listed in Table III-1 of Chapter III, *General Description of the Environmental Setting*, of this Draft EIR. The boundaries of the area in which they are located, Downtown and nearby surrounding areas, is shown in Figure III-1, Related Projects Map.

The calculation of the cumulative number of housing units, population, and employees attributable to the related projects is provided in Appendix L of this Draft EIR. A summary of cumulative growth is shown in **Table IV.K-4, Total Cumulative Development**.

Table IV.K-5, Cumulative Population, Housing, and Employment Growth Within the City of Los Angeles, compares cumulative growth, inclusive of the Project, to 2016-2040 RTP/SCS 2040 horizon year projections. The projections focus on the SCAG 2016-2040 RTP/SCS 2040 horizon year as opposed to the Project's 2023 buildout date. SCAG projections incorporate regional policies and are based on long-term demographic trends.⁴¹ The 2040 horizon year serves as the basis for preparation of SCAG's long-range regional plan, policies and strategies for transportation improvements and regional growth throughout the SCAG region. The 2040 projections also serve as a basis for the planning

⁴¹ Southern California Association of Governments, 2016 RTP/SCS, page 13.

of services, utilities and other infrastructure improvements by regional agencies and local jurisdictions.

TABLE IV.K-4
TOTAL CUMULATIVE DEVELOPMENT

	Residential Population^b	Housing Units^b	Employment Population^b
Cumulative Projects ^a	120,742	49,688	57,023
Proposed Project - Total Build-out	1,929	794	49
Total Cumulative Growth	122,671	50,482	57,072

SOURCES:

^a A list of the related projects is provided in Table III-1 of Chapter III of this Draft EIR.

^b The tabulation of related project's population, housing, and employment calculations are presented in Appendix L of this Draft EIR. SOURCE : ESA, 2018.

TABLE IV.K-5
CUMULATIVE POPULATION, HOUSING AND EMPLOYMENT GROWTH WITHIN THE CITY OF LOS ANGELES

	Cumulative Increase Including Proposed Project^a	SCAG Projected Growth^b	Cumulative Percentage of Growth
Population	122,671	656,713	18.7%
Households	50,482	292,362	17.3%
Employment	57,072	345,762	16.5%

^a From Table IV.K-4.

^b From Table IV.K-1.

SOURCE: ESA, 2018.

The 2040 population projections take into account long term regional development trends. Actual development within shorter time frames or localized areas may vary slightly from the projected rates, but short-term variations average out over time. Accordingly, SCAG revises their projections every four years and will complete their next update cycle in 2020, prior to the 2023 Project buildout and will continue to regularly perform further updates moving into the future. SCAG's regular monitoring of factors affecting growth in the region allows the projections to remain suitable for use by service agencies for their long-term planning.

The cumulative growth reflected in Table IV.K-4 and Table IV.K-5 reflects a broad mix of development including residential, office and retail uses, as well as miscellaneous uses including event spaces, theaters, and art spaces. The related projects would be implemented over a longer time period than the expected completion date of the Project, with many developments consisting of longer range plans for development and/or phased developments that would extend further out in time.

The Downtown area currently has a substantial infrastructure system in place to serve Downtown population, consistent with growth patterns identified in applicable SCAG and City plans. (For further discussion refer to Section O.1, *Wastewater* and Section O.2, *Water Supply*, of this Draft EIR. Further, the cumulative development is within the growth estimates and growth distribution patterns accounted for within the SCAG projections and policies. As reported in Table IV.K-5, the estimate of cumulative population growth in the larger Project Site vicinity, the 122,671 new people to the area, constitute 18.7 percent of the population growth SCAG projects for the City by the 2040 horizon year. The 50,482 cumulative households within the City constitutes 17.3 percent of SCAG's projected growth of 292,362 households in the City by 2040. The employment population associated with the cumulative growth would represent 16.5 percent of the projected new employment population Citywide by year 2040.

The relative increases in residential population, housing and employment population associated with the cumulative development reflect the ongoing transition in and around Downtown from a primarily commercial and industrial center to a more mixed-use development center. This development is occurring within the developed area and consistent with plan policies that serve as a guide for providing services and infrastructure. The cumulative development in the City will provide opportunities for households to locate within the HQTAs, and more particularly the Downtown area with its substantial transit facilities, potentially reducing demand for development in lower-density areas of Los Angeles and achieving greater efficiency in the provision and use of services and infrastructure, in keeping with SCAG goals and policies.

Additionally, the jobs/housing balance associated with the cumulative development would be approximately 1.13, which is less than the 2017 Citywide ratio of 1.3.⁴² The jobs/housing ratio of the cumulative development in Downtown at 1.13 is a function of the heavy emphasis on the provision of housing in the Downtown area. The 2017 ratio in Downtown is estimated to be 7.3, and when combined with 1.13 ratio of the cumulative development would fall to 3.2, moving the Downtown area into closer alignment with the regional average of 1.35, which is an improvement over existing conditions because it brings more housing into close proximity to job opportunities. This growth trend indicates that the City's new developments are improving the distribution of jobs and housing within the City.

⁴² Based on the data in Table IV.K-1, above.

As discussed above, the projected cumulative population, household, and employment growth would be within the 2040 SCAG projections identified in the 2016 RTP/SCS for the City, in an area that is highly urbanized, with existing infrastructure that can support additional growth. For these reasons, there would be a less than significant cumulative impact from population and housing growth.

(b) Displacement of Housing and Population

As the Downtown area is substantially built out, the related projects would replace existing development and in some cases, may potentially replace older housing units, requiring relocation of existing population. Generally, the related projects are replacing commercial properties and surface parking lots and increasing residential development overall. However, to the extent that a related project may include displacement of population, that effect would be independent of the Project's impacts. **As the Project would not require the dislocation of housing or population, the Project would not contribute to a cumulatively considerable contribution to such displacement.**

f) Mitigation Measures

Project-level and cumulative impacts on population and housing would be less than significant. No mitigation measures are required.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.L.1 Fire Protection

1. Introduction

This section addresses the Project's potential impacts on fire protection services during construction and operation of the Project. The analysis focuses on the City of Los Angeles (City) Fire Department (LAFD) facilities that currently serve the Project Site. The analysis is based in part on fire protection facilities and services information provided by LAFD, which is included in Appendix M-1 of this Draft EIR.¹ The analysis also includes information regarding water availability for firefighting (fire-flow) provided in the *Civil Engineering Report* for the Project, which is included in Appendix P-1, of the Draft EIR.²

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) *California Building and Fire Codes*

The California Code of Regulations (CCR) Title 24 (California Building Code [CBC]) is a compilation of building standards, including fire safety standards for residential and commercial buildings. CBC standards are based on building standards that have been adopted by state agencies without change from a national model code; building standards based on a national model code that have been changed to address particular California conditions; and building standards authorized by the California legislature, not covered by the national model code. The California Fire Code is part of the CBC.³ Typical fire safety requirements of the California Fire Code include: the installation of fire sprinkler suppression systems in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and, the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The California Fire Code applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Specific

¹ Kristin Crowley, Fire Marshal, Los Angeles Bureau of Fire Prevention and Public Safety, correspondence dated May 8, 2018. Included in Appendix M-1 of this Draft EIR.

² David Evans and Associates Inc., Civil Engineering Report, 1045 South Olive Street Development, Infrastructure, June 20, 2019. Included in Appendix P-1 of this Draft EIR.

³ California Code of Regulations, Title 24 (California Building Code [CBC]), Part 9, California Fire Code, <https://www.citymb.info/Home/ShowDocument?id=28089>. Accessed August 5, 2019.

California Fire Code regulations have been incorporated by reference with amendments, in the Los Angeles Building Code, Fire Safety Regulations.⁴

(b) *California Fire Service and Rescue Emergency Aid System*

The LAFD participates in the California Fire Service and Rescue Emergency Mutual Aid System through which the California Emergency Management Agency, Fire and Rescue Division is responsible for the development, implementation and coordination of the California Fire Service and Rescue Emergency Mutual Aid Plan (Mutual Aid Plan), as managed by the Governor's Office of Emergency Services (OES).⁵ The Mutual Aid Plan outlines procedures for establishing mutual aid agreements at the local, operational, regional, and state levels, and divides the state into six mutual aid regions to facilitate the coordination of mutual aid. The LAFD is located in Region I. Through the Mutual Aid Plan, the OES is informed of conditions in each geographic and organizational area of the state, and the occurrence or imminent threat of disaster. All OES Mutual Aid Plan participants monitor a dedicated radio frequency for fire events that are beyond the capabilities of the responding fire department and provide aid in accordance with the management direction of the OES. The LAFD also has direct Mutual Aid agreements with several local jurisdiction agencies, however, none of the other agency assets are directly designated for use in the Downtown area. These agencies include: Angeles National Forest, Beverly Hills, Burbank, Culver City, El Segundo, Glendale, Los Angeles County, San Fernando, Santa Monica, and Ventura County.⁶

(c) *California Division of Occupational Safety and Health*

The California Division of Occupational Safety and Health (Cal/OSHA) implements the provisions of the federal Occupational Safety and Health Act at the state level. Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. OSHA standards and requirements apply to this Project (and all construction projects) because contractors would be required to comply with procedures for the protection of Project Site employees, most notably during the construction phase. Compliance with these procedures would reduce the likelihood of a LAFD response for emergency services or to provide on-site first response services should an incident occur.

(d) *California Constitution Article XIII, Section 35*

Section 35 of Article XIII of the California Constitution at Subdivision (a)(2) provides: "The protection of public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services."

⁴ Also referred to as City Fire Code. Article 7 of Chapter V of the Los Angeles Municipal Code.

⁵ California Emergency Management Agency, Fire and Rescue Division, California Fire and Rescue Emergency Mutual Aid System, Mutual Aid Plan, revised December 2014, <http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES%20-%20Fire%20and%20Rescue%20-%20Mutual%20Aid%20Plan%20-%2020141201.pdf>. Accessed May 22, 2018.

⁶ Los Angeles Fire Department, Mutual Aid Agreements/Disaster Declarations/Potential Fiscal Impacts, July 3, 2014, https://www.lafd.org/sites/default/files/pdf_files/lafdlafdreport186489186_07312014.pdf. Accessed March 19, 2019.

Section 35 of Article XIII of the California Constitution was adopted by the voters in 1993 under Proposition 172. Proposition 172 directed the proceeds of a 0.50-percent sales tax to be expended exclusively on local public safety services. California Government Code Sections 30051-30056 provide rules to implement Proposition 172. Public safety services include fire protection. Section 30056 mandates that cities are not allowed to spend less of their own financial resources on their combined public safety services in any given year compared to the 1992-93 fiscal year. Therefore, an agency is required to use Proposition 172 to supplement its local funds used on fire protection services, as well as other public safety services. In *City of Hayward v. Board of Trustee of California State University* (2015) 242 Cal. App. 4th 833, the court found that Section 35 of Article XIII of the California Constitution requires local agencies to provide public safety services, including fire protection and emergency medical services (EMS), and that it is reasonable to conclude that the City will comply with that provision to ensure that public safety services are provided.⁷

(2) Local

(a) General Plan Framework

The City's General Plan Framework, originally adopted in December 1996 and re-adopted in August 2001, sets forth general guidance regarding land use issues for the entire City and defines citywide policies regarding land use, including public services. Specific City fire protection and EMS goals and objectives within the General Plan, Chapter 9, Infrastructure and Public Services, include:⁸

Goal 9J: Every neighborhood has the necessary level of fire protection service, emergency medical service and infrastructure.

Objective 9.16: Monitor and forecast demand for existing and projected fire facilities and service.

Objective 9.17: Assure that all areas of the City have the highest level of fire protection and EMS, at the lowest possible cost, to meet existing and future demand.

(b) General Plan Safety Element

The City's General Plan Safety Element was adopted on November 26, 1996. It contains policies related to the City's response to hazards and natural disasters. The specific fire protection and emergency medical policy within the General Plan Safety Element include:⁹

⁷ California Court of Appeals, *City of Hayward v. Board Trustee of California State University* (2015) 242 Cal. App. 4th 833, 847, <https://caselaw.findlaw.com/ca-court-of-appeal/1719667.html>. Accessed August 5, 2019.

⁸ City of Los Angeles, The Citywide General Plan Framework, Chapter 9, <https://planning.lacity.org/cwd/framwk/chapters/09/09.htm#fire>. Accessed May 22, 2018.

⁹ City of Los Angeles, Safety Element of the Los Angeles City General Plan, <https://planning.lacity.org/cwd/gnlpn/saftyelt.pdf>. Accessed May 22, 2018.

Policy 2.1.6: Standards/fire. Continue to maintain, enforce and upgrade requirements, procedures and standards to facilitate more effective fire suppression. (All peak load water and other standards, code requirements [including minimum road widths, access, and clearances around structures] and other requirements or procedures related to fire suppression implement this policy.)

The LAFD and/or appropriate City agencies shall revise regulations or procedures to include the establishment of minimum standards for location and expansion of fire facilities, based upon fire-flow requirements, intensity and type of land use, life hazard, occupancy and degree of hazard so as to provide adequate fire and emergency medical event response.

(c) *Central City Community Plan*

The City's 2009 Central City Community Plan (Community Plan), which covers the Downtown area of the City including the Project Site, contains the following fire protection objective and policy applicable to the Project in Chapter III, Land Use Policies and Programs, Government and Public Facilities, Fire Protection:¹⁰

Objective 6.1: To ensure that fire facilities and protective services are sufficient for the existing and future population and land uses of Central City.

Policy 6.1.1: Coordinate with the Fire Department as part of the review of significant development projects and General Plan Amendments affecting land use to determine the impact on service demands.

(d) *Municipal Code and Charter*

Los Angeles Municipal Code (LAMC) Section 57.101 adopts portions of the California Fire Code and International Fire Code (IFC) as the City's Code (Fire Code). Per Section 57.103 of the LAMC, the Fire Chief is required to administer and enforce basic building regulations set by the State Fire Marshal as amended. The Fire Code also provides regulations for the safeguarding of life and property from fire, explosion, panic, or other hazardous conditions which may arise in the use or occupancy of buildings, structures, or premises. Key regulations pertaining to the Project are discussed below.

Section 520 of the Los Angeles City Charter states that the LAFD shall have the power and duty to control and extinguish injurious or dangerous fires and remove that which is likely to cause those fires; enforce all ordinances and laws relating to the prevention or spread of fires, fire control, and fire hazards within the City; conduct fire investigations; and protect lives and property in case of disaster or public calamity. Additionally, Section 57.106.5.2 of the LAMC authorizes the Fire Chief to require drawings, plans, or sketches that may be necessary to identify: (1) occupancy access points; (2) devices and systems within the scope of Chief's Regulation No. 4; (3) utility controls; (4) stairwells; and (5) hazardous materials/waste. Furthermore, Section 57.107.7 of the LAMC requires that the

¹⁰ City of Los Angeles, Central City Community Plan, <https://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>. Accessed May 22, 2018.

installation, alteration, and major repair of the following shall be performed under permit of the Department of Building and Safety: (1) LAFD communication systems; (2) building communication systems; (3) automatic elevators; (4) heliports and emergency helicopter landing facilities; (5) emergency power systems; (6) fire escapes; (7) private fire hydrants; (8) fire assemblies; (9) fire protective signaling systems; (10) pilot lights and warning lights for heat-producing equipment; (11) refrigerant discharge systems; (12) smoke detectors; (13) emergency smoke control systems; (14) automatic fire sprinkler suppression systems; (15) standpipe systems; (16) gas detection systems.

Generally, Section 57.118 of the LAMC sets forth the services of the LAFD to perform fire/life safety plan review and fire/life safety inspection for new constructions. Section 57.118.1.1 of the Fire Code requires that all new high-rise buildings greater than 75 feet in height (measured from the lowest point with fire access) must include fire/life safety reviews by the Department of Building and Safety and LAFD; Section 57.118.11 requires that such high-rise building incorporate sprinkler systems. Under Section 57.4705.1.6 of the LAMC, there must be at least one elevator which shall be available for fire EMS and shall have its controls designed so that key switches located in the building control station/fire command center will recall said elevator or elevators to the designated main floors.

Section 57.4705.4 of the LAMC also requires that each building shall have a rooftop emergency helicopter landing facility in a location approved by the Fire Chief. A heliport as classified in Federal Aviation Administration (FAA) Advisory Circular 150/5390 2B may be accepted in lieu of the emergency helicopter landing facility. Facilities shall be installed under permit of Chapter 9 of the Los Angeles Municipal Code (Building and Plumbing Codes) and should also be in accordance with the guidelines of FAA Advisory Circular 150/5390 2B.

For high-rise buildings, Section 57.408 of the LAMC requires the preparation of an Emergency Plan that establishes dedicated personnel and emergency procedures to assist the LAFD during an emergency incident, and establishes a drill procedure to prepare for emergency incidents. The Emergency Plan must be submitted to the LAFD for approval prior to implementation, and must be submitted annually (and revised if required by the LAFD).

Section 57.4704.4.3.1 of the LAMC requires that the Smoke detectors required by Chapter 9 of the LAMC (Building Code) be maintained in dependable operating condition and tested every six months or as required by the Fire Chief. An accurate record of such tests must be kept by the owner, manager, or person in charge of the property, and such records must be open to examination by the Fire Chief.

Section 57.4704.6 of the LAMC requires that all flammable and combustible liquids in dwelling units and guest rooms shall comply with Sections 57.4704.6.1 through 57.4704.6.5.1. The storage, handling, and use of Class IB, IC, or combustible liquids in hotels or apartment houses shall be only for the purpose of maintenance and operation

of maintenance equipment. Storage shall be in approved containers and in hazardous material cabinets in locations approved by the Chief.

Section 57.4704.8 of the LAMC requires that no person shall use, maintain, or allow to exist any portable, fuel-burning, unvented room heater in any residential occupancy.

Section 57.4704.9 of the LAMC requires that no person shall store or use compressed gases or liquefied flammable gases within a residential occupancy.

Section 57.507.3.1 of the LAMC addresses access, hydrants, fire-flow requirements, and response distances. Fire-flow, defined as the quantity of water available or needed for fire protection in a given area and normally measured in gallons per minute (gpm) as well as duration of flow. Fire-flow adequacy is determined by the type of land use with high-density land uses requiring higher flows from a greater number of hydrants. A minimum residual water pressure of 20 pounds per square inch (psi) is required to remain in the water system in addition to the required gpm water flow.

Section 57.507.3.3 of the LAMC limits the maximum response distances to an LAFD station based on the type of land use. The maximum response distance from a high-density residential and commercial development to a fire station is 1.5 miles from an engine company and 2 miles from a truck company. Fire hydrant spacing and hydrant type is also determined according to land use (57.507.3.2 of the LAMC). For high-density residential and neighborhood commercial development, one hydrant per 100,000 square feet of land is required with a 300 to 450 feet distance between hydrants. Furthermore, every first story of a residential development must be within 300 feet of an approved hydrant. Section 57.501.1.1 of the LAMC also provides for supplemental fire protection in which equipment and systems not otherwise required in the LAMC may be required by the LAFD.

(e) *Proposition Q*

Proposition Q, the Citywide Public Safety Bond Measure, was approved by voters in March 2002. Proposition Q allocated \$600 million to renovate, improve, expand and construct police, fire, 911, and paramedic facilities. In March 2011, the program was expanded to include renovations to existing LAFD facilities throughout the City. A total of 80 renovation projects at LAFD facilities were scheduled. These renovation projects include the installation of diesel exhaust capture systems, upgrades to air filtration and electrical systems, re-roofing, remodeling, parking lot repair, painting, and other improvements. The fire renovation projects identified under this measure have been completed.¹¹

¹¹ City of Los Angeles, A 2002 Proposition Q Citywide Safety Bond Program Progress Report – February/March 2016, <http://www.lapropq.org/modules/fileUpload/files/Prop%20Q%20Monthly%20Feb%20Mar%202016%20Report.pdf>. Accessed April 27, 2018.

b) Existing Conditions

(1) Project Site

The Project Site is currently developed with commercial buildings and is located within a highly urbanized area. No wildlands are present on the Project Site or in the surrounding area. Furthermore, the Project Site is not within a City-designated wildfire hazard area¹² or a Very High Fire Hazard Severity Zone.¹³

(2) Existing Emergency and Fire Services

(a) Fire Protection Services, Facilities, and Response Times

Fire prevention, fire suppression, life safety, and EMS within the City are provided by the LAFD. The LAFD is a full-spectrum life safety agency that serves a population of more than four million people. The LAFD's 3,246 uniformed personnel and 353 civilian support staff provide fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education, and community service. At any given time, there are a total of 1,018 uniformed firefighters, including 270 paramedics, on-duty at 106 fire stations across the LAFD's 471 square mile jurisdiction.¹⁴

The Project Site is located in LAFD's Central Bureau, Battalion 1, Division 1, and as show in **Figure IV.L.1-1, LAFD Fire Stations in the Project Vicinity**, five existing LAFD fire stations are located in the Project Site vicinity and provide initial response to the Project Site.¹⁵ The driving distances of each of these stations to the Project Site, and their average response times, staffing, and equipment, are summarized in **Table IV.L.1-1, LAFD Fire Stations in the Project Vicinity**. This analysis uses driving distances to the Project Site provide a more conservative analysis.

As reported in Table IV.L.1-1, these fire stations include: (1) Fire Station No. 10, located at 1335 S. Olive Street, approximately 0.35-mile to the southwest; (2) Fire Station No. 9, located at 430 E. 7th Street, approximately one-mile to the east; (3) Fire Station 11, located at 1819 W. 7th Street, approximately 1.7 miles to the north; (4) Fire Station No. 3, located at 108 N. Fremont Avenue, approximately 1.7 miles to the northeast; and, Fire Station No. 13, located at 2401 W. Pico Boulevard, approximately 2.1 miles to the northwest.¹⁶

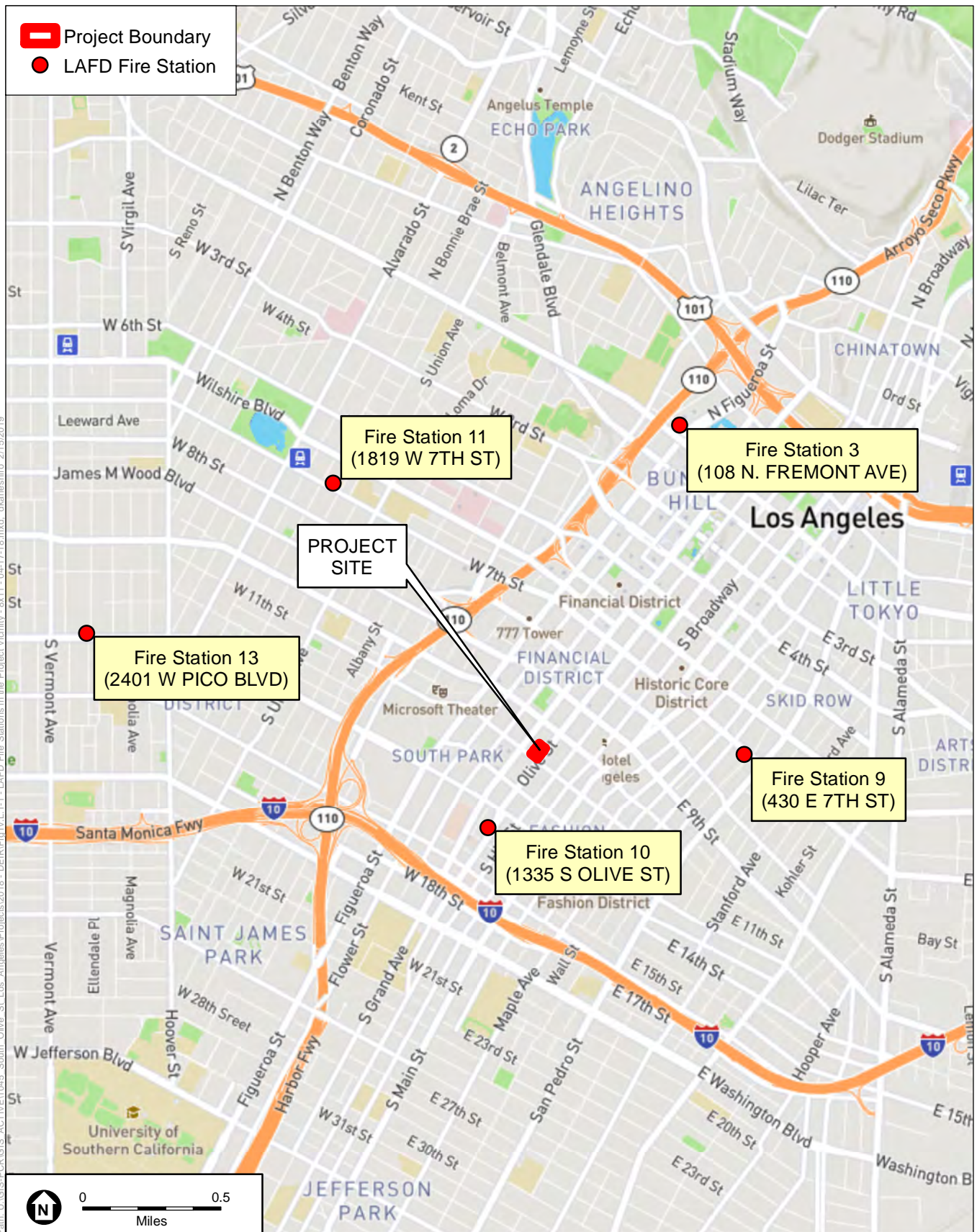
¹² City of Los Angeles, Department of City Planning, Safety Element of the Los Angeles City General Plan, adopted November 26, 1996, Exhibit D – Selected Wildfire Hazard Areas in the City of Los Angeles, <https://planning.lacity.org/cwd/gnlpn/safteyelt.pd>. Accessed May 1, 2018.

¹³ City of Los Angeles, Zoning Information and Map Access System (ZIMAS), <http://zimas.lacity.org>. Accessed April 27, 2018.

¹⁴ Los Angeles Fire Department, Department Overview, <http://www.lafd.org/about/about-lafd/our-mission>. Accessed April 17, 2018.

¹⁵ Kristin Crowley, Fire Marshal, Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department, correspondence dated May 8, 2018.

¹⁶ Kristin Crowley, Fire Marshal, Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department, correspondence dated May 8, 2018.



SOURCE: Open Street Map, 2018.

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Figure IV.L.1-1
LAFD Fire Stations in the Project Vicinity

**TABLE IV.L.1-1
LAFD FIRE STATIONS IN THE PROJECT VICINITY**

Station No./Location	Distance From Project Site (miles)	Average Response Times ^a			Full Time Firefighters	Equipment and Services
		Non-EMS ^b	EMS ^b	Structural Fire ^b		
Fire Station 10 1335 S. Olive Street	0.8/ 0.35 ^c	5:49	6:25	4:47	14	Task Force Truck and Engine Company Paramedic Rescue Ambulance EMT Rescue Ambulance
Fire Station 9 430 E. 7 th Street	1.0	5:34	5:50	4:12	12	Task Force Truck and Engine Company Paramedic Rescue Ambulance Battalion 1 Headquarters
Fire Station 11 1819 W. 7 th Street	1.7	5:40	6:07	4:23	14	Task Force Truck and Engine Company Paramedic Rescue Ambulance
Fire Station 3 108 N. Fremont Ave.	1.7	6:14	6:44	4:11	16	Task Force Truck and Engine Company Paramedic Rescue Ambulance EMT Rescue Ambulance - Division Headquarters
Fire Station 13 2401 W. Pico Blvd.	2.1	5:57	6:16	4:11	9	Single Engine Company Paramedic Rescue Ambulance

^a Los Angeles Fire Department, FireStatLA, <http://www.lafd.org/fsla/stations-map>. Accessed April 17, 2018.

^b Non-EMS = Fire and others services. EMS = Emergency Medical Services. Structure Fire: The call type is specifically reserved for when the LAFD receives a report of a building or structure that is actively burning. Structural Fires are reported quarterly.

^c The travel distance provided in the LAFD letter is 0.8 miles. This appears to be the distance from the Project Site to the Fire Station with travel limited to one-way street configurations in the vicinity of the Project. The distance for purposes of responding to an on-site call from Fire Station 10 would be approximately 0.35 miles by heading north on Olive Street.

SOURCE: ESA, April, 2018. Based on information from Kristin Crowley, Fire Marshal, Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department, correspondence dated May 8, 2018 (See appendix M-1).

As reported in Table IV.L.1-1, the average response times for each of the fire stations in the Project area are between 5:34 and 6:14 minutes for non-EMS (fire and other services) calls and between 5:50 and 6:44 minutes for EMS calls. The response times for structural fire incidents (i.e. reports received by the LAFD of a building or structure that is actively burning) varies between 4:11 and 4:47 minutes.

Table IV.L.1-2, LAFD Fire and Paramedic Incident Data, lists the numbers of non-EMS and EMS incidents for each of the five fire stations from January – March, 2018. As shown, the majority of the incidents responded to by the five fire stations were EMS calls.

**TABLE IV.L.1-2
LAFD FIRE AND PARAMEDIC INCIDENT DATA (JANUARY – MARCH, 2018)**

Station No. And Location	Non-EMS^a	EMS^a	Total
Fire Station 10 1335 S. Olive Street Fire	436	1,366	1,802
Fire Station 9 430 E. 7th Street Fire	894	4,025	4,919
Station 11 1819 W. 7th Street	441	2,185	2,626
Station 3 108 N. Fremont Ave.	386	1,173	1,559
Fire Station 13 2401 W. Pico Blvd.	249	1,306	1,555

^a Los Angeles Fire Department, FireStatLA, <http://www.lafd.org/fsla/stations-map>. Accessed April 17, 2018.

SOURCE: ESA, April 2018.

(i) *Response Distance*

The Project Site is accessible by emergency vehicles from several major roadways, including from the Harbor Freeway (Interstate 110), Interstate 10 (I-10) freeway, South Olive Street, East 11th Street, West Olympic Boulevard, and South Grand Avenue. According to the City's Fire Code (Section 57.507.3.3), the first-due Engine Company and Truck Company should be within 1.5 mile of the Project Site. As indicated in Table IV.L.1-1, Fire Station 10, the first-due Engine Company and first-due Truck Company, Fire Station 10, is located approximately 0.35-mile from the Project Site and, therefore, meets the LAFD distance standard for both an Engine Company and Truck Company. Additionally, Fire Station 9, located approximately 1.0 mile from the Project Site, also meets the Engine Company and Truck Company standards. Furthermore, the other three

fire stations, all of which include a truck and/or engine company, are located within 2.1 miles or less of the Project Site. Therefore, the response distances are adequate.¹⁷

(ii) *Water Infrastructure/Fire-Flow for Firefighting Services*

Water for firefighting purposes is supplied to the Project Site by the Los Angeles Department of Water and Power (LADWP). As stated in the *Utility Report* prepared for the Project, Appendix P-1, there are existing 10- and 12-inch water main lines in Olive Street, and an existing 10-inch water main in 11th Street. There are no fire hydrants directly adjacent to the Project Site. However, there are three existing public fire hydrants located near the Project Site: (1) on the western side of Olive Street, approximately 100 feet from the northern edge of the Project Site; (2) on the eastern side of Olive Street directly across from the Project Site; (3) on the southern side of 11th Street directly across from the Project Site.¹⁸

In general, fire-flow requirements are closely related to land use as the quantity of water necessary for fire protection varies with the type of development, life hazard, type of occupancy, and degree of fire hazard. Fire-flow requirements vary from 2,000 gpm in low-density residential areas to 12,000 gpm in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds psi is to remain in the water system, with the required gallons per minute flowing. The LAFD and LADWP have determined that the required fire-flow for this Project has been set at 4,000 gpm from four adjacent fire hydrants flowing simultaneously.¹⁹

3. Project Impacts

a) Thresholds of Significance

In assessing the Projects potential impacts related to fire protection services in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as its thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to fire protection if it would:

¹⁷ Kristin Crowley, Fire Marshal, Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department, correspondence dated May 8, 2018.

¹⁸ David Evans and Associates Inc., Civil Engineering Report, 1045 South Olive Street Development, Infrastructure, June 20, 2019.

¹⁹ Kristin Crowley, Fire Marshal, Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department, correspondence dated May 8, 2018.

- a) *Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., fire service facilities), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.***

The L.A. CEQA Thresholds Guide identifies the following factors to consider in answering the Appendix G question:

- Project size,
- Components, required fire-flow, response time and distance for engine and truck companies,
- Fire hydrant sizing and placement standards, access, and potential to use or store hazardous materials, proposed land use, site conditions,
- Surrounding area for substandard street width,
- Brush fire, hazard areas, and hillside conditions

b) Methodology

The analysis of the Project's impacts on fire services takes into account the size of the Project, the uses proposed, fire-flow necessary to accommodate the Project and distance for engine and truck companies (the distance standard is 1.5 mile for an Engine Company and 2.0 miles for a Truck Company for developments with the characteristics of this Project), fire hydrant sizing and placement standards, access, the Project's potential to use or store hazardous materials and information provided by the LAFD. Based on these factors, a determination is made as to whether the LAFD would require the addition of a new or physically altered facility, the construction of which could result in a potentially significant environmental impact. As part of the analysis, the LAFD was consulted, the LAFD website was reviewed, and applicable provisions of the Fire Code were reviewed. Information regarding the ability to provide fire-flow is provided in the Civil Engineering Report for this Project. This information includes Fire Service Pressure Flow Reports based on hydrant testing by LADWP.²⁰

c) Project Characteristics

The Project would be designed and constructed in accordance with the requirements of the Fire Code, as reviewed and approved by the LAFD. In addition, to support accessibility for the LAFD in providing services during construction, the Project would be required to implement a Construction Traffic Management Plan and a Worksite Traffic Control Plan.

²⁰ David Evans and Associates Inc., Civil Engineering Report, 1045 South Olive Street Development, Infrastructure, June 20, 2019.

d) Project Impacts

Threshold a) *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., fire service facilities), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services? Less than Significant Impact.*

(1) Construction

The Project is a mixed-use development and does not involve the construction or physical alteration of a fire station.

Construction of the Project would be of a temporary short-term nature; and would involve activities that could pose conditions conducive to fire hazard or accident. However, compliance with OSHA, the Fire Code, and Building Code requirements, would reduce hazardous conditions and the potential for requiring services from the LAFD. Construction managers and personnel would be trained in fire prevention and emergency response, and fire suppression equipment would be maintained on-site. Project construction would also comply with applicable existing codes and ordinances related to the maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials, specifically formulated to avoid substantial fire and EMS hazards, as required under LAMC 57.4704.6. The Project would implement a Construction Traffic Management Plan and Worksite Traffic Control Plan (TRAF-PDF-1) that would reduce the potential for accidents that would require emergency responses to the Project Site; that would facilitate access should an emergency response be required; and that would help reduce potential traffic conflicts that could slow responses from LAFD stations.

As described in Table IV.L.1-1, above, there are readily available fire stations that are available to serve the Project Site, with Fire Station 10, the first-in station as close as 0.35 miles, and four additional stations within 1.0 to 2.1 miles, if needed for back-up. These include stations with Task Force Truck and Engine Companies, Paramedic Rescue Ambulances, and EMT Rescue Ambulances.

Given the short-term nature of construction, the low number of expected calls for service due to the controlled nature of the construction activities, and the multiple fire stations that are readily available to serve the Project Site, Project construction would not require the provision of or need for new or altered fire protection facilities, in order to maintain acceptable fire services. Impacts on the fire services would be less than significant. Mitigation measures are not required.

(2) Operations

The Project would include residential and commercial uses, which would not create unique fire response demands compared to more potentially hazardous uses such as industrial uses. The Project would comply with the LAMC Building and Fire Codes, and other applicable fire protection requirements, including but not limited to: the provision of fire resistant doors, materials, walkways, stairwells, and elevator systems (including emergency and fire control elevators); installation of automatic fire sprinkler suppression systems (with sprinklers provided on all floors), smoke detectors, signage, fire alarms, building emergency communication systems, smoke control systems; implementation of an Emergency Safety Plan; compliance with LAFD fire apparatus and personnel access requirements; water system and roadway improvements made to the satisfaction of the LAFD; and LAFD review and approval of definitive plans and specifications.

The City evaluates the adequacy of fire services on the basis of required distance from fire stations and required fire-flow.

(a) *Locations of Fire Fighting Facilities*

As reported in Table IV.L.1-1 and shown in Figure IV.L.1-1, Fire Station 10 is located approximately 0.35-mile and Fire Station 9 is located approximately 1 mile from the Project Site. Both stations meet the LAFD's distance standards to the Project Site, which are less than 1.5 miles for an Engine Company and less than 2.0 miles for a Truck Company. Fire Stations 11 and 3 are less than 2.0 miles and also meet the Truck Company distance standard. Therefore, the Project Site could be served by any or all of these four stations, should an emergency event occur. Fire Station 13 is 2.1 miles from the Project Site. According to the LAFD, at present, there are no immediate plans to increase LAFD staffing or resources in the areas that would will serve the Project Site.²¹

Access at the Project Site would be available from Olive Street, 11th Street and the public alley adjacent to the Project Site. The Project would provide LAFD site/building access, and emergency directional signage required by both the LAMC Building and Fire Codes as elaborated upon in *LAFD's May 8, 2018 Correspondence* included as in Appendix M- 1.

Access to the Project Site is not impeded by any of the factors that could adversely affect firefighting services in the Project vicinity. The Project Site is located outside of hazardous/hillside areas. Because of the grid pattern of the local street system and the proximity to multiple freeways, each of the nearby fire stations has multiple routes available to respond to emergency calls at the Project Site. Further, the LAFD has been upgrading its service capabilities including: installation of automated vehicle locating systems on all LAFD apparatus; replacement of fire station alerting systems that control

²¹ City of Los Angeles Bureau of Engineering, Fire Bond Projects 2007, http://eng.lacity.org/fire_bond. Accessed October 24, 2018.

fire station dispatch audio, signal lights, and other fire station alerting hardware and software; development of a new computer aided dispatch system to manage fire and emergency medical service incidents from initial report to conclusion of an incident; and, use of traffic unmanned aerial systems.²²

(b) *Fire-flow/Water Facilities*

Water for firefighting to serve the Project Site is available from existing 10- and 12-inch water main lines in Olive Street, an existing 10-inch water main in 11th Street; and three existing public fire hydrants located near the Project Site. The LAFD has determined that the required fire-flow for the Project from the water facilities serving the Project Site is 4,000 gpm from four nearby hydrants flowing simultaneously with a residual water pressure of 20 psi.²³ LADWP has confirmed that existing fire-flow would be available to serve the Project Site.²⁴

While helicopter landing facilities are required on all high-rise buildings in the City (LAFD Requirement No.10) the Fire Prevention Bureau's Requirement 10 for Emergency Helicopter Landing Facilities (EHLF) allows for two alternatives' to a fully FAA-approved landing facility. These alternatives include more limited helicopter landing facilities and/or replacing such EHLF facilities with a number of safety features inclusive of sprinkler systems designed to meet specific standards, video camera systems, and other building design safety features.²⁵ The Project would provide an alternative pursuant to Regulation 10 upon demonstration that it meets the required sprinkler and other building design requirements.

The Project would include a 10-inch fire meter that serves both domestic and fire services that was approved by LADWP.²⁶ The Project is also approved for a 6-inch combo meter that serves both domestic and fire services in Olive Street, if needed. Installation would be done by LADWP and would include new hot taps, laterals, and detector checks for the meter. Fire service water would be piped into the building from the meter. Backflow preventers, fire water tanks and fire pumps would be documented on the plumbing drawings, prepared at the time the building design is submitted to the City and LAFD for review. Based on preliminary design, the required secondary fire water storage tank is estimated to be 31,200 gallons, however the tank would, per final review, store at a minimum the necessary volume of water to comply with requirements and to account for any deficiencies in the water infrastructure, inclusive of Requirement 10 standards. The

²² Los Angeles Fire Department, 2018-2020 Safer City Strategic Plan, https://issuu.com/lafd/docs/strategic_plan_final_2018.02.09?e=17034503/59029441. Accessed October 24, 2018.

²³ Kristin Crowley, Fire Marshal, Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department, correspondence dated May 8, 2018.

²⁴ David Evans and Associates Inc., Civil Engineering Report, 1045 South Olive Street Development, April 4, 2018.

²⁵ Los Angeles Fire Department, Office of the Fire Marshal, Los Angeles Fire Department Requirement No.10. Emergency Helicopter Landing Facilities (EHLF), https://www.lafd.org/sites/default/files/pdf_files/EHLF-Reg10.pdf. Accessed June 10, 2019.

²⁶ David Evans and Associates Inc., Civil Engineering Report, 1045 South Olive Street Development, April 4, 2018.

proposed building would include automatic sprinklers on all floors. The only potential off-site construction would be minor hook-ups to water main-lines, which would not have any notable impact on the environment.

(c) *Summary of Project Impacts*

As mentioned above, the *LAFD's May 8, 2018 Correspondence* (Appendix M-1 of this Draft EIR) is based on its review of the Project. It elaborates on the regulatory requirements and provides guidance regarding their application the Project. Based upon the accessibility of the Project Site, and the applicability of regulatory requirements per guidance of the LAFD, the LAFD has determined that fire protection resources for the Project are considered "adequate".²⁷ Specifically, the following factors are stated in the LAFD correspondence: project site is within an acceptable response distance and achievement of the specified fire-flow. The LAFD correspondence also confirms that there are no plans to increase Fire Department staffing or resources in the Project vicinity.

Therefore, the Project would not create the need for new fire department facilities that might cause significant environmental impacts. Impacts would be less than significant. No mitigation measures are required.

e) Cumulative Impacts

The geographic context for the cumulative analysis for fire protection is the service areas of the LAFD stations that would serve the Project, specifically Fire Stations 10, 9, 11, 3 and 13. The City has identified related projects as listed in **Table III-1** of Chapter III, *General Description of the Environmental Setting*, of this Draft EIR.

The location of the related projects in relation to the location of these Fire Stations and their service areas, within the Downtown and adjacent surrounding areas, is shown in **Figure IV.L.1-2, Location of LAFD Stations and Related Projects**. The related projects are located throughout the service areas of these Fire Stations. Given the distribution of the Fire Stations, the related projects would generally be located within 1 mile of first-in truck and/or engine companies; and otherwise within 1.5 miles. As such, the related projects would generally be located within acceptable distances of the Fire Stations; and would be readily accessible to them. If a related project were not within the acceptable distance from a fire station, LAMC 57.507.3 would require related projects to install automatic fire sprinkler suppression systems to comply with response distance requirements.

²⁷ Kristin Crowley, Fire Marshal, Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department, correspondence dated May 8, 2018, page 3.

Similar to the Project, the related projects would be required to implement all applicable LAMC (including Building Code and Fire Code) requirements regarding structural design, building materials, site access, fire-flow, storage and management of hazardous materials, and alarm and communications systems. Compliance with these requirements would be demonstrated as part of LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects, as set forth in Section 57.118 of the LAMC, prior to the issuance of a building permit. Like the Project, most of the related projects would also be required to install automatic fire sprinkler suppression systems to enhance fire safety.

As noted above, the Project does not require additional hydrants, and would meet its fire-flow requirements from existing facilities. Each related project, per the standard construction permitting process, would be assessed by the LAFD and LADWP to ensure each has sufficient fire-flow and water supplies. Additional hydrants may be required for the other related projects. Provision of the additional hydrants if they were needed would require minor construction activity that would not have substantial impacts on the physical environment.

With regard to cumulative impacts on fire protection, consistent with *City of Hayward v. Board Trustees of California State University* (2015) 242 Cal.App.4th 833 ruling and the requirements stated in the California Constitution Article XIII, Section 35(a)(2) in Subsection 2.a.(1)(d) above, the obligation to provide adequate fire protection and emergency medical service is the responsibility of the City. Through the City's regular budgeting efforts, LAFD's resource needs, including staffing, equipment, trucks and engines, ambulances, other special apparatuses and possibly station expansions or new station construction, would be identified and allocated according to the priorities at that time.

LAFD has not identified that it would construct any new station in the area impacted by this Project either because of this Project or this Project and other projects in the service area.²⁸ Therefore, it would be speculative to attempt to determine whether the LAFD's plans may change at some time in the future as a result of increased demand created by the Project together with the related projects. Over time, however, LAFD 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. Through the City's regular budgeting efforts, LAFD's resource needs would be identified and monies allocated according to the priorities at the time. The Project, as well as the related projects, would also generate revenues to the City's General Fund (in the form of property taxes, sales tax revenue, etc.) that could be applied toward the provision of fire services, as deemed appropriate by the City. Through the City's regular budgeting efforts, LAFD's resource needs would be identified and monies allocated according to the priorities at the

²⁸ Kristin Crowley, Fire Marshal, Los Angeles Bureau of Fire Prevention and Public Safety, correspondence dated May 8, 2018.

time. The Project, as well as the related projects, would also generate revenues to the City's General Fund (in the form of property taxes, sales tax revenue, etc.) that could be applied toward the provision of fire services, as deemed appropriate by the City.

Nevertheless, if a new fire station, or the expansion, consolidation, or relocation of an existing station were determined to be warranted by LAFD, the Downtown area is highly developed and presumably, any potential future site for a fire station would foreseeably be an infill lot less than an acre in size. The development of such a station is unlikely to result in significant impacts. Any such speculative projects involving the construction or expansion of a fire station would be addressed independently pursuant to CEQA and would likely meet the requirements for the use of a Class 32 categorical infill exemptions (CEQA Guidelines 15332). Accordingly, the potential need for additional fire protection services is not an environmental impact that the Project would be required to mitigate.

Therefore, a cumulatively considerable increase in fire protection services demand that would require a new fire station, or the expansion, consolidation, or relocation of an existing fire station, the construction of which could cause significant environmental impacts, is not anticipated from the development of the Project or related projects. **Therefore, cumulative impacts would be less than significant. No mitigation measures are required.**

f) Mitigation Measures

Project-level and cumulative impacts related to fire protection service would be less than significant. No mitigation measures are required.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.L.2 Police Protection

1. Introduction

This section evaluates whether new or physically altered police facilities would be required to provide police protection services to the Project, the construction of which could cause significant environmental impacts. The analysis is based, in part, on information provided by City of Los Angeles (City) Police Department (LAPD), and includes statistical data regarding police protection facilities and services and response times. This information is included in Appendix M-2 of this Draft EIR.¹ Additional information included in this analysis is also based on the LAPD crime control model computer statistics (COMPSTAT) database and other data on the LAPD website.²

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) *California Constitution Article XIII, Section 35*

Section 35 of Article XIII of the California Constitution at subdivision (a)(2) provides: “The protection of public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services.” Section 35 of Article XIII of the California Constitution was adopted by the voters in 1993 under Proposition 172. Proposition 172 directed the proceeds of a 0.50-percent sales tax to be expended exclusively on local public safety services. California Government Code Sections 30051-30056 provide rules to implement Proposition 172. Public safety services include police protection. Section 30056 mandates that cities are not allowed to spend less of their own financial resources on their combined public safety services in any given year compared to the 1992-93 fiscal year. Therefore, an agency is required to use Proposition 172 to supplement its local funds used on public safety services, including police protection. In *City of Hayward v. Board of Trustee of California State University* (2015) 242 Cal. App. 4th 833, the court found that Section 35 of Article XIII of the California Constitution requires local agencies to provide public safety services, including

¹ Captain Al Neal, Commanding Officer, and Officer Christopher Gibson, Community Relationship Division, Los Angeles Police Department, correspondences dated January 17, 2018. Included in Appendix M-2 of this Draft EIR.

² Los Angeles Police Department, COMPSTAT, http://www.lapdonline.org/search_results/content_basic_view/6363 Site. Accessed February 2018.

police protection, and that it is reasonable to conclude that the city will comply with that provision to ensure that public safety services are provided.³

(2) Regional

(a) *County of Los Angeles Office of Emergency Management (OEM)*

The Office of Emergency Management (OEM), established by Chapter 2.68 of the County Code, is responsible for organizing and directing emergency preparedness efforts, as well as the day-to-day coordination efforts, for the County's Emergency Management Organization.⁴ The OEM's broad responsibilities include, among others, planning and coordination of emergency services on a countywide basis.

The County organizes a formal mutual aid agreement among all police departments within its jurisdiction to provide police personnel and resources to assist other member agencies during emergency and/or conditions of extreme peril. Formal mutual aid requests between police departments can be made under the purview of the Los Angeles County Sheriff's Department (LACSD); however, additional informal agreements may be made directly between the police agencies. The Mutual aid Operations Plan provides a structure for response should an emergency arise that requires immediate response by a greater number of law enforcement personnel than would be available to LAPD using all other available resources.⁵

(3) Local

(a) *Los Angeles General Plan Framework Element*

The City's General Plan Framework Element provides a comprehensive vision or strategy for long-term growth within the City and guides subsequent amendments of the City's Community Plans, Specific Plans, zoning ordinances, and other local planning programs, although it does not supersede the more detailed Community and Specific Plans. As stated in the General Plan Framework, primary police law enforcement services are provided by the LAPD and supplemental services are provided by the LACSD, the California Highway Patrol, the Federal Bureau of Investigation, and the Drug Enforcement Administration. Specific police protection goals, objectives, and policies within the General Plan, Chapter 9 Infrastructure and Public Services, that are applicable to the Project include:

³ California Court of Appeals, *City of Hayward v. Board of Trustees of California State University* (2015) 242 Cal. App. 4th 833, 847, <https://caselaw.findlaw.com/ca-court-of-appeal/1719667.html>. Accessed August 5, 2019.

⁴ County of Los Angeles, Chief Executive Office, Office of Emergency Management, <http://www.lacoa.org/aboutoem.html>. Accessed February 2018.

⁵ County of Los Angeles, County online: Chief Executive Officer, Operational Emergency Response Plan. Section 1. Introduction, <http://lacoa.org/PDF/OAERP/SECTION%201.%20%20INTRODUCTION.pdf>. Accessed May 31, 2015.

Goal 9I: Every neighborhood in the City has the necessary police services, facilities, equipment, and manpower required to provide for the public safety needs of that neighborhood.

Objective 9.13: Monitor and forecast demand for existing and projected police service and facilities.

Policy 9.13.1: Monitor and report police statistics, as appropriate, and population projections for the purpose of evaluating police service based on existing and future needs.

Objective 9.14: Project the public and provide adequate police services, facilities, equipment and personnel to meet existing and future needs.

Policy 9.14.7: Participate fully in the planning of activities that assist in defensible space design and utilize the most current law enforcement technology affecting physical development.

Objective 9.15: Provide for adequate public safety in emergency situations.

Policy 9.15.1: Maintain mutual assistance agreements with local law enforcement agencies, State law enforcement agencies, and the National Guard to provide for public safety in the event of emergency situations.⁶

(b) Central City Community Plan

The City's 2009 Central City Community Plan (Community Plan), which covers the Downtown area, including the Project Site, contains the following police protection objectives, policies and programs applicable to the Project:⁷

Chapter III, Land Use Policies and Programs, Government and Public Facilities, Police Protection:

Objective 5-1: To provide adequate police facilities and personnel to correspond with population and service demands in order to provide adequate police protection.

Policy 5-1.1: Consult with the Police Department as part of the review of significant development projects and General Plan amendments affecting land use to determine the impact on law enforcement service demands.

Policy 5-2.1: Promote the establishment of Police facilities and programs which provide police protection at a neighborhood level.

Program: Coordinate with Business Improvement District security patrols. Continue and expand bike patrols, neighborhood beats, or other community-based policing appropriate to the District.

⁶ City of Los Angeles General Plan, Citywide General Plan Framework Element, 1995, Chapter 9, Infrastructure and Public Services, <https://planning.lacity.org/cwd/framwk/chapters/09/09.htm#police>. Accessed October 28, 2018.

⁷ City of Los Angeles Department of City Planning, Central City Community Plan, 2003. <http://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>. Accessed February 2018.

Objective 5-2: To inform developers, design professionals, and the public of the possible reduction of criminal opportunities when crime prevention principles are developed during the initial planning stages of a development.

Policy 5-2.1: Promote the safety and security of personal property through proper design and effective use of the built environment which can lead to a reduction in the incidence and fear of crime, reduction in calls for police service, and to an increase in the quality of life.

Program: Incorporate whenever possible the design guidelines contained in the City's Crime Prevention through Environmental Design "Design Out Crime" Guidelines and published by the City Planning Department.

(c) *LAPD in 2020*

LAPD in 2020 is the LAPD's strategic plan to become the safest big city in America. LAPD in 2020 provides the department's vision, mission, and core values as well as history and statistics. For the first two years of the program, (fiscal years 2016 and 2017), LAPD has articulated an action plan of 10 strategic goals, as follows:⁸

- Strategic Goal 1: Reduce Crime and Victimization
- Strategic Goal 2: Build Community Trust and Collaboration
- Strategic Goal 3: Improve Traffic Safety
- Strategic Goal 4: Emphasize Preparedness and Counter-terrorism
- Strategic Goal 5: Strengthen the Public Safety Workforce
- Strategic Goal 6: Foster Employee Wellness and Satisfaction
- Strategic Goal 7: Mitigate Risk and Reduce Harm
- Strategic Goal 8: Develop Innovative Sustainability Program
- Strategic Goal 9: Drive Accountability and Reward Creativity
- Strategic Goal 10: Leverage Technology to improve Performance

The plan contains 31 initiatives to meet the goals, and 94 key activities to be carried out in order for the initiatives to be successful.

(d) *COMPSTAT Program*

In 1994, the LAPD incorporated the use of the COMPSTAT Program. The COMPSTAT Unit implements the General Plan Framework goal of assembling statistical population and crime data to determine necessary crime prevention actions. This system implements a multi-layered approach to police protection services through statistical and geographical

⁸ Los Angeles Police Department. LAPD in 2020, <http://assets.lapdonline.org/assets/pdf/LAPD%20Strategic%20Plan.pdf>. Accessed April 3, 2018.

information system analysis of growing trends in crime through a specialized crime control model. COMPSTAT has been shown to reduce crime occurrences in Los Angeles communities through accurate and timely intelligence regarding emerging crime trends or patterns.⁹

(e) *Design Out Crime/Crime Prevention through Environmental Design*

The City of Los Angeles has established an initiative called "Design Out Crime," to encourage project design that incorporates strategies from Crime Prevention through Environmental Design (CPTED). CPTED is intended to look beyond traditional policing methods to address public safety, thus reducing the amount of police officers that would otherwise be required. CPTED provides a series of strategies and design recommendations that can be used by project planners/architects. Recommended design practices use the location of activities within the Project Site, as well as other site features including, the use of paths, lighting, entryways, and security features (locks/gates/signs) to enhance site safety. These features improve safety and reduce crime by providing visual connection/natural surveillance and discouraging criminal activity.¹⁰

(f) *Charter and Administrative and Municipal Codes*

The law enforcement regulations, powers, and duties of the LAPD are outlined in the City Charter, Administrative Code and Los Angeles Municipal Code (LAMC). City Charter Article V, Section 570 gives the power and the duty to the LAPD to enforce the penal provisions of the Charter, City ordinances, and State and federal law. The Charter also gives LAPD the responsibility to act as peace officers and to protect lives and property in case of disaster or public calamity. Section 22.240 of the Administrative Code requires the LAPD to adhere to the State standards described in Section 13522 of the California Penal Code, which charges the LAPD with the responsibility of enforcing all LAMC Chapter 5 regulations related to fire arms, illegal hazardous waste disposal, and nuisances (such as excessive noise), and providing support to the Department of Building and Safety Code Enforcement inspectors and the Los Angeles Fire Department (LAFD) in the enforcement of the City's Fire, Building, and Health Codes. The LAPD is given the power and the duty to protect residents and property, and to review and enforce specific security related mitigation measures in regards to new development.

⁹ Los Angeles Police Department, COMPSTAT Plus, http://www.lapdonline.org/inside_the_lapd/content_basic_view/6364. Accessed February 2018.

¹⁰ Los Angeles Police Department, Official Site, Design Out Crime page, http://www.lapdonline.org/crime_prevention/content_basic_view/8852#1. Accessed March 25, 2019.

b) Existing Conditions

(1) LAPD

The LAPD provides police protection services in the City. The LAPD includes 21 community police areas operated by the four geographically defined Central, South, West, and Valley Bureaus. The LAPD also has a variety of specialized units including Special Operations, Special Weapons and Tactics (SWAT), Gangs and Narcotics, K-9, and the Mounted Unit.¹¹

The Project Site is located in the LAPD's Central Bureau. The Central Bureau covers a 65-square-mile area with roughly 842,700 people and includes such diverse communities as Downtown, Eagle Rock, the Fashion District, MacArthur Park, Dodger Stadium, Griffith Park, Staples Center, and L.A. LIVE.¹² To the north, the Central Bureau is bordered by the cities of Burbank, Glendale, Pasadena, and South Pasadena. The Central Bureau oversees operations in five LAPD Areas, including the Central, Hollenbeck, Newton, Northeast, and Rampart areas. The Central Bureau also oversees the operations of the Central Traffic Division, which is responsible for traffic enforcement and collision investigation for all operations in the Central Bureau.¹³

The Project Site is served by the Central Community Police Station, located at 251 East 6th Street, approximately 1.0 miles to the northeast of the Project Site. Travel time to the Project Site from the Central Community Police Station is 5 minutes.¹⁴ The Project Site is located within LAPD's Reporting District (RD) 0182, as shown in **Figure IV.L.2-1, Location of Central Community Police Station.**¹⁵

The Central Community Police Station serves an approximately 4.5-square-mile area (LAPD Central Area), which includes Chinatown, Little Tokyo, South Park, Central City East, Historic Core, Financial District, Artists' Lofts, Olvera Street, Jewelry District, the Convention Center, and the Fashion District.¹⁶ As shown in Figure IV.L.2-1, the service boundaries for the Central Area are general bounded by Stadium Way, the 110 Freeway to the north, Washington Boulevard and 7th Street to the south, Los Angeles River to the east, and the 110 Freeway to the west.

¹¹ Los Angeles Police Department, Inside the LAPD, http://www.lapdonline.org/inside_the_lapd. Accessed February 2018.

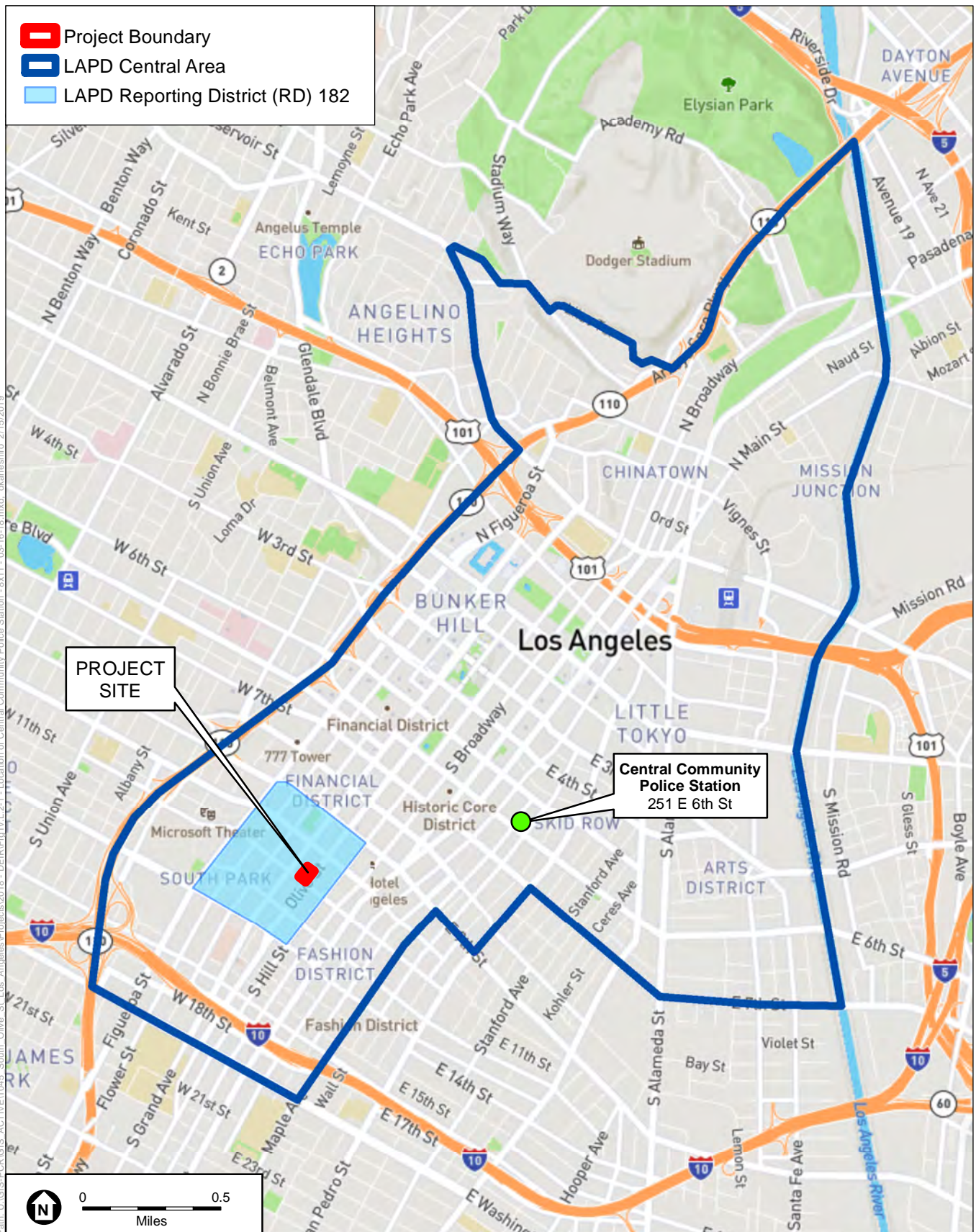
¹² Los Angeles Police Department, About Central Bureau. http://www.lapdonline.org/central_bureau/content_basic_view/1908. Accessed in March 2018.

¹³ Los Angeles Police Department, Central Bureau-Central Traffic, http://lapdonline.org/central_traffic. Accessed in March 2018.

¹⁴ Captain Al Neal, Commanding Officer, and Officer Christopher Gibson, Community Relationship Division, Los Angeles Police Department, correspondence dated January 17, 2018. Included in Appendix M-2 of this Draft EIR.

¹⁵ Captain Al Neal, Commanding Officer, and Officer Christopher Gibson, Community Relationship Division, Los Angeles Police Department, correspondence dated January 17, 2018.

¹⁶ Los Angeles Police Department, Central Bureau Map, http://www.lapdonline.org/central_bureau/content_basic_view/9259. Accessed March 2018.



SOURCE: Open Street Map, 2018.

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Figure IV.L.2-1
Location of Central Community Police Station

The Central Community Police Station has 370 sworn personnel and 30 civilian support staff and provides service to a population of approximately 40,000 residents.¹⁷ When situations arise requiring increased staffing, additional officers can be called in from other LAPD community police stations. Furthermore, as stated above, as with all municipal police departments in Los Angeles County, the LAPD participates in the Mutual Aid Operations Plan for Los Angeles County, a reciprocal agreement between signatory agencies including local police departments to provide police personnel and resources to assist other member agencies during emergency and/or conditions of extreme peril.

Table IV.L.2-1, *Population, Officer, Crime, and Response Time Comparison*, lists the resident population, number of sworn officers, and number of crimes for the Central Area and citywide. Table IV.L.2-1 also shows the officer/resident ratio and average response times for the Central Area and the City as a whole. The officer/resident ratio and average response times are provided for informational purposes, as there are no adopted ratios or response times, used as performance requirements. As set forth in Table IV.L.2-1, the officer to resident population ratios within the Central Area and Citywide are 1:108 and 1:400, respectively; the number of crimes per 1,000 residents within the Central Area and Citywide are 154 and 29, respectively; and the average response times by LAPD to emergency calls within the Central Area is 2.7 minutes.¹⁸ The LAPD monitors crime activity through the use of its COMPSTAT system, which enables the LAPD to track crime trends and proactively deploy officers, and support crime prevention and intervention in addition to enforcement.¹⁹

Table IV.L.2-2, *Central Area City Crime Statistics (2015-2017)*, summarizes the crime statistics for the Central Area for 2015, 2016, and 2017. As reported therein, the total number of crimes in the Central Area for 2017 was 6,829, with most of the crimes related to thefts and assaults. In order to meet the need of policing in the Downtown area, specially trained officers are assigned to tactical teams in LAPD's Metropolitan Division to rapidly respond to crime spikes and to proactively prevent crimes and address special needs such as those associated with at-risk youths; homelessness, and incidents involving a mental health crisis.²⁰

¹⁷ Los Angeles Police Department, Central Bureau Map, http://www.lapdonline.org/central_bureau/content_basic_view/9259. Accessed March 2018.

¹⁸ Captain Al Neal, Commanding Officer, and Officer Christopher Gibson, Community Relationship Division, Los Angeles Police Department, correspondence dated January 17, 2018.

¹⁹ Los Angeles Police Department, COMPSTAT Plus, http://www.lapdonline.org/inside_the_lapd/content_basic_view/6364. Accessed February 2018.

²⁰ Los Angeles Police Department, LAPD Statement on Crime Fighting Strategies, January 20, 2016, http://www.lapdonline.org/home/news_view/60015. Accessed March 6, 2018.

**TABLE IV.L.2-1
POPULATION, OFFICER, CRIME, AND RESPONSE TIME COMPARISON (2016)**

Service Area	Square Miles	Resident Population	Officers	Officers/ Resident Ratio	Crimes	Crimes per 1,000 Residents	Average Response Time for Emergency Calls
Central Area	4.5 ^a	40,000 ^a	370 ^a	1/108 ^a	6,144 ^a	154	2.7 minutes ^a
Citywide	472.9 ^b	3,962,726 ^b	9,897 ^b	1/400	116,532 ^b	29	N/A ^c

^a Captain Al Neal, Commanding Officer, and Officer Christopher Gibson, Community Relationship Division, Los Angeles Police Department, correspondence dated January 17, 2018.

^b Los Angeles Police Department, COMPSTAT Citywide Profile, 12/04/16 to 12/31/16, <http://assets.lapdonline.org/assets/pdf/123116cityprof.pdf>. Accessed March 6, 2018. Citywide data represents the most recent year (2016) from which complete data was available.

^c Per Los Angeles Police Department telephone conversation with Officer Christopher Gibson on December 18, 2017, the Los Angeles Police Department does not provide average response times for emergency calls as a Citywide statistic given the range of response times over the varied geographic areas within the City.

SOURCE: ESA, 2018.

**TABLE IV.L.2-2
CENTRAL AREA CRIME STATISTICS (2015, 2016, AND 2017)**

Crime	2017		2016		2015	
	Number	Percent	Number	Percent	Number	Percent
Homicide	21	0.31	11	0.18	11	0.18
Rape	104	1.5	90	1.5	96	1.6
Robbery	718	11	682	11.1	688	11.4
Aggravated Assault	1,180	17	909	14.8	952	15.8
Burglary	375	5	324	5.3	350	5.8
Motor Vehicle Theft	391	6	399	6.5	430	7.2
Burglary from Motor Vehicle	1,360	20	1,100	17.9	913	15.2
Personal/Other Theft	2,680	39	2,629	42.8	2,569	42.8
Total	6,829	100%	6,144	100%	6,009	100%

SOURCE: Captain Al Neal, Commanding Officer, and Officer Christopher Gibson, Community Relationship Division, Los Angeles Police Department, correspondence dated January 17, 2018. ESA, 2018.

(2) South Park Business Improvement District (BID)

The South Park Business Improvement District (BID), in which the Project Site is located, was established by City Ordinance No. 182,278 on October 2, 2012 and is managed by the South Park Stakeholders Group.²¹ The South Park BID covers an approximately 32-square block area of Downtown Los Angeles. The BID provides a Safety Team that patrols South Park 24-hours a day, seven days a week by foot, bike, Segway, and motor vehicle. The BID's Safety Team helps to control public street disorder and panhandling; provides security during special events; patrols property; and reports suspicious activities, criminal actions and emergencies to the LAPD. The South Park BID is funded by the property owners within the District who assess themselves annually to pay for the services. As reported in the South Park Stakeholders Group 2017 Annual Meeting, crime levels in the South Park neighborhood are substantially lower than the rest of Downtown Los Angeles.²²

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to police protection services, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the threshold of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to police protection services if it would:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., police stations), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection.***

The L.A. CEQA Threshold Guide identifies the following factors to evaluate police services:

- The size of the population and geographic area served, the number and type of calls for service, and other community characteristics,
- Scheduled improvements to LAPD services (facilities, equipment, and officers).

²¹ South Park Business Improvement District, About the BID, <http://southpark.la/about/>. Accessed December 18, 2017.

²² South Park Stakeholders Group, 2017 Annual Meeting, <https://southpark.la/wp-content/uploads/2017/11/171127-Annual-Meeting-Final.pdf>. Accessed October 26, 2017.

b) Methodology

In assessing the Project's potential to result in the need for new or expanded police facilities, this analysis takes into consideration existing service measurements and the Project's security and/or design features intended to reduce the demand for police protection services. The analysis presents statistical data for the Central Area and Citywide, including the ratio of crimes to residents and the ratio of officers to residents, for information purposes as there are no adopted ratios or response times that are used as performance standards. For purposes of this analysis, the residential population of the Project is assumed to be 2.43 people per household, the average household size for multi-unit households in the City.²³

The LAPD does not provide crime rates or officer service ratios for non-residential uses and does not use such ratios to measure service levels. However, the Thresholds Guide provides Police Service Population Conversion Factors for non-residential populations (retail, office and hotel) that are discussed in the analysis. Non-residential generation factors for related project uses not covered in the Thresholds Guide are based on the rate for office uses, as this is the highest rate in the Thresholds Guide, and thus provides a conservative analysis.

Based on a review of the LAPD evaluation of the ability to meet Project needs from existing patrols, a review of Project characteristics, including the nature and extent of Project size and operation characteristics, and the ability to offset the need for police services due to provision of private security and other Project Design Features (PDFs), a determination is made as to whether the Project would create a need for a new police department facility or the alteration of existing facilities that would result in significant impacts on the environment.

c) Project Characteristics

The Project would implement a Construction Traffic Management Plan and a Worksite Traffic Control Plan (TRAF-PDF-1) and a Pedestrian Safety Plan (TRAF-PDF-2). These plans would reduce traffic congestion and traffic flow conflicts involving construction traffic, thereby supporting vehicular accessibility for the LAPD in providing emergency services during construction. Additional PDFs proposed to reduce the potential police protection impacts of the Project during construction and operation include the following:

(1) Construction

POL-PDF-1: Construction Security Measures. During construction, on-site security measures will be incorporated, specifically: an eight-foot tall construction

²³ Average household size for the City is provided by the Department of City Planning Demographics Unit, based on information published in the 2016 American Community Survey.

security fence, with gated and locked entry; controlled access, multiple security surveillance cameras, and 24-hour private construction security services.

(2) Operation

POL-PDF-2: Provision of Project Diagrams to LAPD: Prior to the issuance of a building permit, the Applicant will provide the LAPD Central Area Commanding Officer with a diagram of the Project Site, including access routes, gate access codes, and additional information, to facilitate potential LAPD responses once the Project is operating.

POL-PDF-3: On-Site Operational Security Measures. On-site security measures during Project operation will incorporate strategies from Crime Prevention through Environmental Design (CPTED) and include:

- Secured building access/design to residential areas (electronic keys specific to each user);
- Lighting of building entryways and Plaza areas;
- Staff training in safety and sound security policies;
- 24-hour video surveillance;
- Trained 24-hour security personnel (providing assistance to residents and visitors with Site access; monitoring entrances and exits of the building; managing and monitoring fire/life/safety systems; and patrolling the Project Site, including parking areas).
- Installation and utilization of an extensive security camera network, with approximately 40-50 cameras throughout the underground and above-grade parking structure; the elevators; the common and amenity spaces; the lobby areas; and the rooftop and ground level outdoor open spaces;
- Maintaining all security camera footage for at least 30 days, and providing such footage to LAPD as needed; and
- Maintaining approximately 30-40 staff on-site, including 24 hours at the lobby concierge desk and within the car valet areas, with designated staffers dedicated to monitoring the Project's security cameras and directing staff to locations where any suspicious activity is viewed.

d) Analysis of Project Impacts

Threshold a) *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., police station), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection? Less than Significant Impact.*

(1) Construction

Construction of the Project would involve the on-site presence of equipment, building materials, vehicles, and temporary offices that could be subject to theft or vandalism and result in a minor demand for police services at the Project Site. However, POL-PDF-1 would require the Project to implement best management practice security measures to secure and protect construction areas with private security, construction fencing, locked entry, and security lighting as described under Subsection 3.c, Project Characteristics, above. In addition, construction activities would involve the use of construction equipment and activity within the current urban setting and may involve temporary lane closures for utility relocations/hook-ups, delivery of materials, and movement of construction equipment at the edge of the Project Site. Such activities would occur during off-peak hours and only on certain days. As described in Section IV.L *Transportation and Traffic*, Project would include a Construction Traffic Management Plan and a Worksite Traffic Control Plan (TRAF-PDF-1) that would be subject to review and approval by the City of Los Angeles Department of Transportation (LADOT), to ensure that adequate and safe access remains available at the Project Site during construction activities. Furthermore, most construction staging would occur on the Project Site, thus limiting the potential for the Project to block road access. The Project would also include a Pedestrian Safety Plan (PDF-TRAF-2) that would ensure safe pedestrian passage adjacent to Project construction. In addition, should the Project need to provide work within the City-Right of Way, e.g., for a utility hook-up, LADOT reviews and oversees implementation of short-term (less than 72 hours) Temporary Traffic Control Plans to ensure compliance with Federal and State principles and standards to provides for the safe and efficient movement of road users through and around the construction zone.²⁴

As discussed in Subsection 2.b, Existing Conditions, above, the Project Site is in a highly urbanized and fully built out area of Downtown Los Angeles that is already served by police services provided by the LAPD. The Project Site is served by the Central Community Police Station, which has approximately 370 sworn officers and is located at

²⁴ Los Angeles Department of Transportation, Website, Citywide Temporary Traffic Control. <http://ladot.lacity.org/what-we-do/plan-review/citywide-temporary-traffic-control>. Accessed, October 28, 2018.

251 E. 6th Street, approximately 1.0 miles from the Project Site; and could provide service to the Project Site. The Project's construction activities would be short-term in nature and typical of those associated with mixed-use, high-rise development in the Downtown area. Such temporary activities, particularly when accommodated by self-policing site security features, would not create special demand for police provisions. **Therefore, Project construction would not result in the need for new or physically altered governmental facilities (i.e., police stations), the operations of which would cause significant environmental impacts. Impacts on police protection services would be less than significant and no mitigation measures are required.**

(2) Operations

Operations of the Project itself, would include the long-term occupancy of 794 residential units and 12,504 square feet of restaurant/retail space. These uses would add new activity and population at the Project Site. The Project would have an estimated residential population of 1,929 people, based upon an average household size of 2.43 people per unit. As calculated in Section IV.K, *Population and Housing*, of this Draft EIR, the Project would also include 84 employees, or an increase of 49 employees over those currently estimated to be on the Project Site. Of the 84 total employees, approximately 30 to 40 employees would provide Project security and would reduce the Project's demand for police services rather than adding to the demand. The Thresholds Guide recommends the use of a non-residential population factor rather than the number of employees for evaluating impacts on police services. Based on those factors, the Project's net increase in the non-residential population at the Project Site would be 52 people.²⁵

As noted above and discussed in more detail in the Environmental Setting section above, the Project Site is served by the Central Community Police Station, which has approximately 370 sworn officers and is located at 251 E. 6th Street, approximately 1.0 miles from the Project Site. This station currently serves a residential population of approximately 40,000 people and reported 6,829 total crimes in 2017.²⁶ This represents an officer-to-population ratio of approximately 1:108 and an annual crime rate of 0.154

²⁵ The Thresholds Guide includes separate factors for determining non-residential population for the analysis of police services. The population conversion factor for retail uses is 3 persons/1,000 square feet. The Project would increase the retail activity by 7,333 square feet (12,504 square feet less the existing 5,171 square feet of retail use on the Project Site). This would represent an increase in non-residential population of approximately 22 people. When added to the Project's 50 residential employees this would represent an increase in non-residential population of 72 people. Subtracting out the existing manufacturing employees of 20 people (1.35 persons per 1,000 square feet for 14,653 square feet of manufacturing space), the net non-residential population would be 52 people, which approximates the net increase of Project employment of 49 people.

²⁶ Officer Christopher Gibson, Los Angeles Police Department, correspondence on January 17, 2018. Included in Appendix M-2 of this Draft EIR.

crimes per capita.²⁷ The LAPD currently has no plans for a new police station or expansion of an existing station to serve the Project Site and vicinity.^{28,29}

With the increase of the conservatively estimated 1,929 residents from the Project, the police service population would increase from 40,000 residents to 41,929 residents. Given this increase, there would be a need for approximately 18 additional sworn officers to maintain the existing officer-to-resident population service ratio of 1:108. Assuming that the LAPD does not hire any new officers for the Central Area, the officer-to-resident population service ratio would be reduced to 1:113, which is considered to be a negligible change.

As stated above, the City has not adopted an officer-to-resident population service ratio. Moreover, the LAPD has stated in their correspondence that the Project operation would have a minor impact on police services in the Central Area.³⁰ As noted above, there are no plans for the provision of new station facilities at this time.

The Project would be a predominantly residential project with a small amount of restaurant/retail activity. As such, it would not pose unique policing requirements that would require specialized policing facilities or services. The Project Site is also located in the South Park area, which is a relatively low crime part of Downtown. Further, the Project's demand for police services would be met in large part through the provision of private security, whose services would avoid the need for police calls, including first responses to security needs, that would be required by other projects located in other areas. As described above, the Project includes POL-PDF-3, which implements CPTED strategies including design characteristics that contribute to site safety and facilitates policing surveillance, a large full-time private onsite security staff trained to meet safety and security needs, and a closed circuit television system. In addition, as described above, the South Park BID provides safety patrols 24-hours a day, seven days a week by foot, bike, Segway, and motor vehicle. These patrols help to control public street disorder. They report suspicious activities, criminal actions and emergencies to the LAPD, and make private persons' arrests, when appropriate.

²⁷ Officer-to-population ratio calculation: $40,000/370 = 108$ persons per officer or 1:180; Annual crime rate = $6,821/40,000 = 0.084$ crimes per capita.

²⁸ On March 5, 2002, the City passed a Public Safety Bond Measure (Prop Q) for \$600 million dollars to improve, renovate, expand, and construct Public Safety (Police, Fire, Paramedics) Facilities. In 2009, the City reported nine of the eleven construction projects completed and added an additional three proposed projects. However, none of the projects are located within the Project's vicinity. City Administrative Officer, Capital Projects, <http://cao.lacity.org/capital/index.htm>, Accessed October 28, 2018. Also, Proposition Q – 2008 Annual Report and Proposed Project Additions to the Police Facilities Capital Improvement and Renovation Project, http://clkrep.lacity.org/online/docs/2009/09-0698_rpt_cao_3-27-09.pdf. Accessed October 28, 2018.

²⁹ Confirmation regarding the fact that there are no planned facilities for the Central City Community Police Station, nor capital improvement programs to construct a new station were confirmed by Officer Christopher Gibson, via phone communication on November 1, 2018. Refer to Appendix M-2 of this Draft EIR for log notes on the conversation.

³⁰ Officer Christopher Gibson, Los Angeles Police Department, correspondence on January 17, 2018.

As reported above, the LAPD has no current plans to build a new police station or physically alter an existing station as a result of the Project. Although the LAPD does not have a standard regarding such performance characteristics as service ratios or response times, the LAPD has stated in its correspondence that it has determined that Project operation would have a minor impact on police services in the Central Area. As discussed above, the Project would be served by patrols that currently serve the Project Site area. Further, the Project's on-site security and the BID's safety patrols serving the South Park area are expected to reduce potential LAPD calls to the Project. **Therefore, based on all of these reasons, Project operations would not result in the need for new or physically altered governmental facilities (i.e., police stations), the construction of which would cause significant environmental impacts. Impacts involving police protection services would be less than significant and no mitigation measures are required.**

e) Cumulative Impacts

Chapter III, *General Description of the Environmental Setting*, of this Draft EIR, lists 195 related projects that the City has identified as potential development within the Project Site vicinity. For purposes of this cumulative impacts analysis, only 137 of those related projects are located within the Central Community Police Station service area and are therefore considered to be related projects for this cumulative impacts analysis. The location of all of the related projects, including those located in the adjacent services areas of the Rampart, Hollenbeck, Southwest and Newton Community Police Stations, is shown on **Figure IV.L.2-2, Related Projects Served by the Central Community Police Station**. Figure IV.L.2-2, also shows the state highways and selected disaster routes based on information in the L.A. County Disaster Routes mapping system.

Table IV.L.2-3, Cumulative Population for Police Services, shows the estimated residential and non-residential populations associated with the related projects within the Central Community Police Station service area. As indicated therein, the Project's increase of 1,929 residents and 52 non-residents (inclusive of the Project's on-site security personnel) plus the related projects' 96,046 residents plus 58,259 non-residents) would together generate an increase of approximately 97,975 residents and 58,311 non-residents within LAPD's Central Area. These are conservative estimates because they are based on Citywide household sizes rather than the smaller household sizes that occur in the Community Plan Area, they do not take into account related projects that have already been completed, and they do not account for many related projects that may not be built, that would be built at a size less than proposed and/or that would replace existing site populations.

**TABLE IV.L.2-3
CUMULATIVE POPULATION FOR POLICE SERVICES**

Land Use	Amount of Development^a	Units	Generation Factor (residents/employees per unit)	Residential Population	Non-Residential Population
Cumulative Projects					
Residential ^b	39,525	Du	2.43	96,046	--
Office	6,843	1,000 sf	4	--	27,371
Retail	3,940	1,000 sf	3	--	11,820
Hotel	8,026	Rooms	1.5	--	12,039
Schools ^c	3,665	Students	--	--	3,665
Other ^d	841	1,000 sf	4	--	3,364
Total Related Projects				96,046	58,259
Proposed Project	--	--	--	1,929	52
Cumulative + Project	--	--	--	97,975	58,311

^a Based on Table III-1, Related Project List, in Chapter III, *General Description of Environmental Setting*, in this Draft EIR, minus the cumulative projects located outside LAPD's Central Area.

^b Residential population uses the average household size of 2.43 persons per unit, the Citywide average for multiple unit buildings. It is assumed that the residential component of the Project would add approximately 50 non-residents to the Project Site for building operations, most of whom would be security personnel, reducing demand for police services. Nonetheless, their total is included in the estimate of cumulative non-residential population.

^c As a separate generation factor was not provided for schools, the number of students was used for the non-residential population generated by schools. Inclusion of students in these statistics for demand on police services presents a conservative analysis as most students stay on campus during the school day or are otherwise accounted for in the residential population.

^d As a separate generation factor was not provided for various miscellaneous uses, the office generation factor was assumed to provide a conservative estimate.

SOURCE: ESA, 2018 with information taken from the following sources: Related Projects list as presented in Chapter III of this Draft EIR, the City Planning Department, Demographics Unit for residential factors, and the Thresholds Guide for non-residential factors.

(1) Construction

Similar to the Project, each related project that might include construction within a City right-of-way and contribute with the Project to impacts on traffic movements would be required to implement short-term (less than 72 hours) Temporary Traffic Control Plans to ensure compliance with federal and State principles and standards to provides for the safe and efficient movement of road users through and around construction zones.³¹ Further, related projects typically include, pursuant to LADOT practices, the

³¹ LADOT Web Site, Citywide Temporary Traffic Control. <http://ladot.lacity.org/what-we-do/plan-review/citywide-temporary-traffic-control>. Accessed October 28, 2018.

implementation of Construction Management plans similar to that of the Project's TRAF-PDF-1, as cited above. These plans require consideration of other development occurring in the vicinity to ensure that overlapping construction activities that could affect the same streets and travel lanes, during the same time periods, are identified and inform construction traffic control measures to minimize potential congestion and traffic flow conflicts. Through this existing program of construction traffic controls implemented on a project-by-project basis, construction related traffic impacts would be minimized, thus facilitating access by police patrol cars and other emergency service providers.

Construction activities are of short duration; given the many factors that affect the approval of projects and the timing of construction once projects have been approved, it would be speculative to attempt to determine the amount of time that the construction of the related projects that would be approved would overlap the Project's construction activities. Like the Project, development of the related projects would represent continued development of the Downtown area, and the related projects are primarily infill projects that would be served by the existing stations, as reflected in Figure IV.L.2-2. In addition, like the Project, the construction of the related project's residential, office and commercial uses would not create substantial unique new demands on police services that would require special policing activities. As is the case with the Project, patrols associated within the six Downtown BIDs would provide added security throughout the Downtown area, which would therefore reduce the cumulative demand for police services that might occur in connection with construction activities. Moreover, the LAPD currently has no plans for a new police station or expansion of an existing station to serve the Project Site and vicinity.³² **For these reasons, construction of the related projects together with the Project, is unlikely to trigger the need for a new police station. Cumulative impacts due to construction would thus be less than significant; and no mitigation measures would be required.**

(2) Operation

With regard to operation, the cumulative increase in population is conservatively estimated to be 94,073; when combined with the existing population, these estimated new residents would translate to an officer-to-resident ratio of 1:362 in contrast to the current ratio of 1:108. However, as stated above, the City does not have an adopted officer-to-resident ratio as a level of service performance standard.

In addition, the proposed uses of the related projects are residential, office and commercial, which are uses that would not create a substantial unique new demand on police services. Like the Project, each of the related projects would also be expected to provide on-site security, personnel and/or design features for their residents and patrons. Each related project would be subject to the City of Los Angeles' routine construction permitting process, which includes a review by the LAPD to ensure that sufficient security

³² Confirmation regarding the fact that there are no planned facilities for the Central City Community Police Station, nor capital improvement programs to construct a new station were confirmed by Officer Christopher Gibson, via phone communication on November 1, 2018. Refer to Appendix M-2 of this Draft EIR for log notes on the conversation.

measures are implemented. Further, the related projects, notably the non-residential developments, would contribute revenue to the various BIDs, including the South Park BID in which the Project is located and the other five Downtown BIDs that provide substantial security service in the Downtown. As noted in the LAPD's correspondence concerning this Project, the Project would have a minor impact on police department services in the Downtown area; therefore, the Project's would have a less than significant impact, and impacts would not be cumulatively considerable.

Since the LAPD does not currently have a plan to construct a new police station to serve the related projects,³³ based on the facts and circumstances discussed above, it would be speculative to attempt to determine whether the LAPD's plans may change at some time in the future as a result of increased demand created by the Project together with the related projects. Over time, however, the LAPD would continue to monitor population growth and land development throughout the City and identify additional resource needs, including staffing, equipment, other special apparatuses, and possibly station expansions or new station construction that may become necessary to achieve the desired level of service.

Through the City's regular budgeting efforts, the LAPD's resource needs would be identified and monies allocated according to the priorities at the time. The related projects, like the Project, would also generate revenue for the City's general fund that could be used to fund LAPD expenditures as necessary to offset the cumulative incremental impact on police services.

With regard to cumulative impacts on police protection, consistent with *City of Hayward v. Board Trustees of California State University* (2015) 242 Cal.App.4th 833 ruling and the requirements stated in the California Constitution Article XIII, Section 35(a)(2) in Subsection 2.a.(1)(a) above, the obligation to provide adequate public safety services, including police protection, is the responsibility of the City. Through the City's regular budgeting efforts, LAPD's resource needs, including staffing and possibly station expansions or new station construction, would be identified and allocated according to the priorities at the time.

Currently, the LAPD has no known or proposed plans to expand police facilities or construct new facilities within its Central Area. If a new police station, or the expansion, consolidation, or relocation of an existing station were determined to be warranted by LAPD, the Downtown area is highly developed. Presumably, any potential future infill site for a police station would avoid impacts on historic resources and the site of a police station would foreseeably be an infill lot less than an acre in size. The development of a

³³ On March 5, 2002, the City passed a Public Safety Bond Measure (Prop Q) for \$600 million dollars to improve, renovate, expand, and construct Public Safety (Police, Fire, Paramedics) Facilities. In 2009, the City reported nine of the eleven construction projects completed and added an additional three proposed projects. However, none of the projects are located within the Project's vicinity. City Administrative Officer, Capital Projects. <http://cao.lacity.org/capital/index.htm>, Accessed October 28, 2018. Also, Proposition Q – 2008 Annual Report and Proposed Project Additions to the Police Facilities Capital Improvement and Renovation Project, http://clkrep.lacity.org/online/docs/2009/09-0698_rpt_cao_3-27-09.pdf. Accessed October 28, 2018

station at this scale is unlikely to result in significant impacts. Any such speculative projects involving the construction or expansion of a police station would be addressed independently pursuant to CEQA and would likely meet the requirements for the use of a Class 32 categorical infill exemptions (CEQA Guidelines Section 15332). Accordingly, the potential need for additional police protection services is not an environmental impact that the Project would be required to mitigate.

Therefore, cumulative development would not result in the need for new or physically altered police stations, which would cause significant environmental impacts. Cumulative impacts would be less than significant, and no mitigation is required.

f) Mitigation Measures

Project-level and cumulative impacts on police protection would be less than significant. No mitigation measures are required.

g) Level of Significance after Mitigation

Not applicable as impacts would be less than significant without mitigation.

IV.L.3 Schools

1. Introduction

This section evaluates the Project's potential environmental impacts from the construction of school facilities operated by Los Angeles Unified School District (LAUSD) which could be required by the demands of the Project. The analysis estimates the number of students that would be generated by the Project based on LAUSD student generation rates and addresses whether LAUSD school facilities would have sufficient capacity to accommodate these students. The analysis addresses all levels of educational facilities operated by LAUSD (i.e., elementary, middle, and high schools). The analysis is based, in part, on written correspondence with LAUSD, which is included in Appendix M-3, of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) *California Education Code*

Educational services for the Project are subject to the rules and regulations of the California Education Code and governance of the State Board of Education. The State also provides funding through a combination of sales and income taxes. In addition, pursuant to Proposition 98, the State is also responsible for the allocation of educational funds that are acquired from property taxes. Further, the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities.¹

(b) *Senate Bill 50*

The Leroy F. Greene School Facilities Act of 1998 (known as Senate Bill [SB] 50), enacted in 1998, is a program for funding school facilities largely based on matching funds. The new construction grant provides funding on a 50/50 State and local match basis. The modernization grant provides funding on a 60/40 basis. Districts that are unable to provide some, or all, of the local match requirement and are able to meet the financial hardship provisions may be eligible for additional State funding.²

¹ California Education Code Section 17620(a)(1).

² State of California, Office of Public School Construction, School Facility Program Guide, October 24, 2012, https://www.documents.dgs.ca.gov/opsc/publications/handbooks/sfp_guide.pdf. Accessed February 2018.

SB 50 permits the LAUSD to levy a fee, charge, dedication, or other requirement against any development project within its boundaries, for the purpose of funding the construction or reconstruction of school facilities. SB 50 also sets a maximum level of fees a developer may be required to pay. Pursuant to Government Code Section 65996, the payment of these fees by a developer serves to mitigate all potential impacts on school facilities that may result from implementation of a project to a less than significant level.³

(c) *Property Tax*

Operation of California's public school districts, including LAUSD, is largely funded by local property tax. While property tax is assessed at a local level, it is the state which allocates the tax revenue to each district according to average daily attendance rates.

(2) **Local**

(a) *Los Angeles Unified School District*

As indicated above, the State is primarily responsible for the funding and structure of the local school districts, and in this case, LAUSD. As LAUSD provides education to students in many cities and county areas, in addition to the City, its oversight is largely a district-level issue. Public schools operate under the policy direction of elected governing district school boards (elected from the local area) as well as by local propositions which directly impact the funding of facility construction and maintenance. Pursuant to SB 50, LAUSD collects developer fees for new construction within its boundaries.

(b) *Central City Community Plan*

The City's 2009 Central City Community Plan (Community Plan), which covers the Downtown area and includes the Project Site, includes the following objective and policies regarding schools.⁴ Objective 7-1 and Policy 7-1.1 provide directives to LAUSD regarding factors to consider in the siting and development of new schools. Policy 7-1.2 directs LAUSD to pursue planning and building code changes allowing the reuse of existing buildings for educational purposes. This policy provides for the accommodation of additional students without necessarily requiring the need for new school facilities.

b) Existing Conditions

(1) **On-Site Conditions**

The 0.96-acre Project Site is located at the northwest corner of Olive Street and 11th Street, in the Downtown area and South Park community of the City's Central City Community Plan Area. The Project Site is currently developed with five existing

³ California Government Code Section 65996.

⁴ City of Los Angeles Department of City Planning, Central City Community Plan, 2003, pp. III-13 – III-14, <http://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>. Accessed February 26, 2018.

commercial buildings. As such, there is no residential population on the Project Site that would create demand for school services. The small number of employees working in the existing commercial buildings, is approximately 35 employees, as indicated in Table IV.K-2, of Section IV.K, *Population and Housing*, of this Draft EIR. This small number of employees would generate a negligible number of students attending local schools.⁵

(2) Service Provision

The LAUSD is the largest (in terms of number of students) public school system in California and the second-largest in the United States. The LAUSD encompasses approximately 710 square miles and serves the City of Los Angeles, along with all or portions of 26 other cities, as well as several unincorporated areas of Los Angeles County. Approximately 4.8 million people live within the LAUSD's boundaries.⁶ The LAUSD provides kindergarten through high school (K–12) education to a total of 588,696 students with a total enrollment of 713,871 students when including adult education, special day classes, special education schools, and early education, enrolled throughout 1,306 schools and centers, including: 19 primary school centers, 448 elementary schools, 81 middle schools, 94 senior high schools, 54 option schools, 49 magnet schools, 25 multi-level schools, 13 special education schools, two home/hospital, 177 K-12 magnet centers (on regular campuses), 224 charter schools, and 120 other schools and centers.⁷ For the 2017-2018 school year, the LAUSD employed 60,240 personnel, 26,056 are teachers, 2,465 are administrators, 27,128 are classified personnel, and 4,601 are other certificated support personnel.⁸ The LAUSD Fiscal Year 2017-2018 total budget was around \$7.52 billion.⁹

The LAUSD Facilities Services Division (FSD) is responsible for the execution of the District's school construction bond programs, the maintenance and operations of schools, the utilization of existing assets, and master planning for future capital projects.¹⁰ The

⁵ The total number of students associated with commercial uses for all school levels is 0.0378 students per 1,000 square feet of commercial use, based on factors in the 2010 Commercial/Industrial Development School Fee Justification Study, LAUSD, September 27, 2010. ($0.0378 \times 12,504 \text{ sf}/1,000 = 0.47 \text{ students}$)

⁶ Los Angeles Unified School District, Fingertip Facts 2017-2018, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/32/NewlyUpdatedFingertip%20Facts2017-18_English.pdf. Accessed February 2018.

⁷ Los Angeles Unified School District, Fingertip Facts 2017-2018, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/32/NewlyUpdatedFingertip%20Facts2017-18_English.pdf. Accessed February 2018.

⁸ Los Angeles Unified School District, Fingertip Facts 2017-2018, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/32/NewlyUpdatedFingertip%20Facts2017-18_English.pdf. Accessed February 2018.

⁹ Los Angeles Unified School District, Fingertip Facts 2017-2018, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/32/NewlyUpdatedFingertip%20Facts2017-18_English.pdf. Accessed February 2018.

¹⁰ Los Angeles Unified School District, Facilities Services Division, FSD Bond Program. <http://www.laschools.org/new-site/>. Accessed March 25, 2019.

LAUSD voter-approved Bond Program is currently valued at \$27.5 billion.¹¹ The FSD is managing an approximately \$25.6 billion program, including local bonds and matching funds from State bonds, to build new schools to reduce overcrowding and modernize existing campuses throughout the LAUSD. Five local school construction and repair bond measures, Proposition BB and Measures K, R, Y and Q, passed by the voters within LAUSD boundaries provide the majority of the funds for FSD's bond program. Although the sources of funds for the bond program include all of the local bonds approved by voters, a significant portion of Measure Q has not yet been fully issued, nor has more than \$412 million in Measure R and Y bonds. During the most recent bond issuance in February 2018, LAUSD sold approximately \$1.2 billion of Measure Q bonds and \$130 million of Measure Y bonds.¹²

Until recently, the primary goal of the bond program had been to reduce overcrowding by providing students with the opportunity to attend a neighborhood school operating on a traditional, two-semester calendar. As the LAUSD nears achievement of this goal and shifts the bond program towards further investments in school facilities, the FSD is progressing toward development and prioritization of future capital projects, for school sites with the most critical physical conditions and to improve them so they are safe, healthy, and functional places for education. In 2014, the Board of Education approved the allocation of \$7.8 billion to the School Upgrade Program (SUP), the next phase of the LAUSD's bond program.¹³ The execution status reported for the FSD bond program includes the following achievements:

- More than 600 new construction projects providing more than 170,000 new classroom seats have been delivered;
- More than 19,600 school modernization projects have completed construction to provide upgraded facilities to improve the learning environment for students;
- Solar panels on rooftops and parking shade structures throughout LAUSD are anticipated to generate approximately 21.4 megawatts of solar energy;
- School network infrastructure upgrades at all of LAUSD's K-12 school sites are nearly completed;

¹¹ Los Angeles Unified School District, Facilities Services Division, FSD Bond Program, <http://www.laschools.org/new-site/>. Accessed March 25, 2019.

¹² Los Angeles Unified School District, Facilities Services Division, Strategic Execution Plan 2018, pp. 14-16, http://www.laschools.org/documents/download/about_fsd/sep/2012_consolidated_strategic_execution_plan/2018_Facilities_Services_Division_SEP.pdf?version_id=314442931. Accessed October 2018.

¹³ Los Angeles Unified School District, Facilities Services Division, FSD Bond Program, <http://www.laschools.org/new-site/>. Accessed March 25, 2019.

- Over 575 Board-approved projects valued at \$4.0 billion are in pre-construction phase and another 300 plus projects valued at \$475 million are under construction.¹⁴

The LAUSD is currently divided into six local districts (Central, East, Northeast, Northwest, South, West), with the Project Site being located in the Central District.¹⁵ As shown in **Figure IV.L.3-1, Schools Located in the Vicinity of the Project Site**, below, the Project Site is located within the attendance boundaries of Ninth Street Elementary School, John Liechty Middle School, , and seven schools or programs within the Belmont High School Zone of Choice. The LAUSD's Zones of Choice is a strategy whereby LAUSD increases the number of personalized educational options available to students. A Zone of Choice is a geographic area comprised of multiple high school options. The Belmont High School Zone of Choice currently offers 15 high school options with varying specializations for students to choose from.¹⁶

These options are open to all resident students and represent the demographics of the local area. Students residing within the zone attendance boundaries are eligible to apply to any of the school options offered.¹⁷

Table IV.L.3-1, Existing Capacity and Enrollment of LAUSD Schools Serving the Project Site, lists these schools, as well as their location, distance/direction from the Project Site, current capacity, residential and actual enrollments, and current seating overage/shortage levels. Per the LAUSD, available seating capacity is based on residential enrollment (i.e., the number of students living in a school's attendance area who are eligible to attend the school) compared to the respective school's current capacity.

As indicated in Table IV.L.3-1, seven schools, out of the 15 that currently make up the Belmont High School Zone of Choice are all within 1.6 miles or less of the Project Site, are all grades 9-12 schools (e.g., high schools) with a current total capacity of 7,041, a total resident enrollment of 6,932, a total actual enrollment of 5,331, and a current total seating overage of 109, and are currently not overcrowded when taken in total. All LAUSD schools are now currently operating on a single-track calendar in which instruction generally begins in mid-August and continues through early June.¹⁸

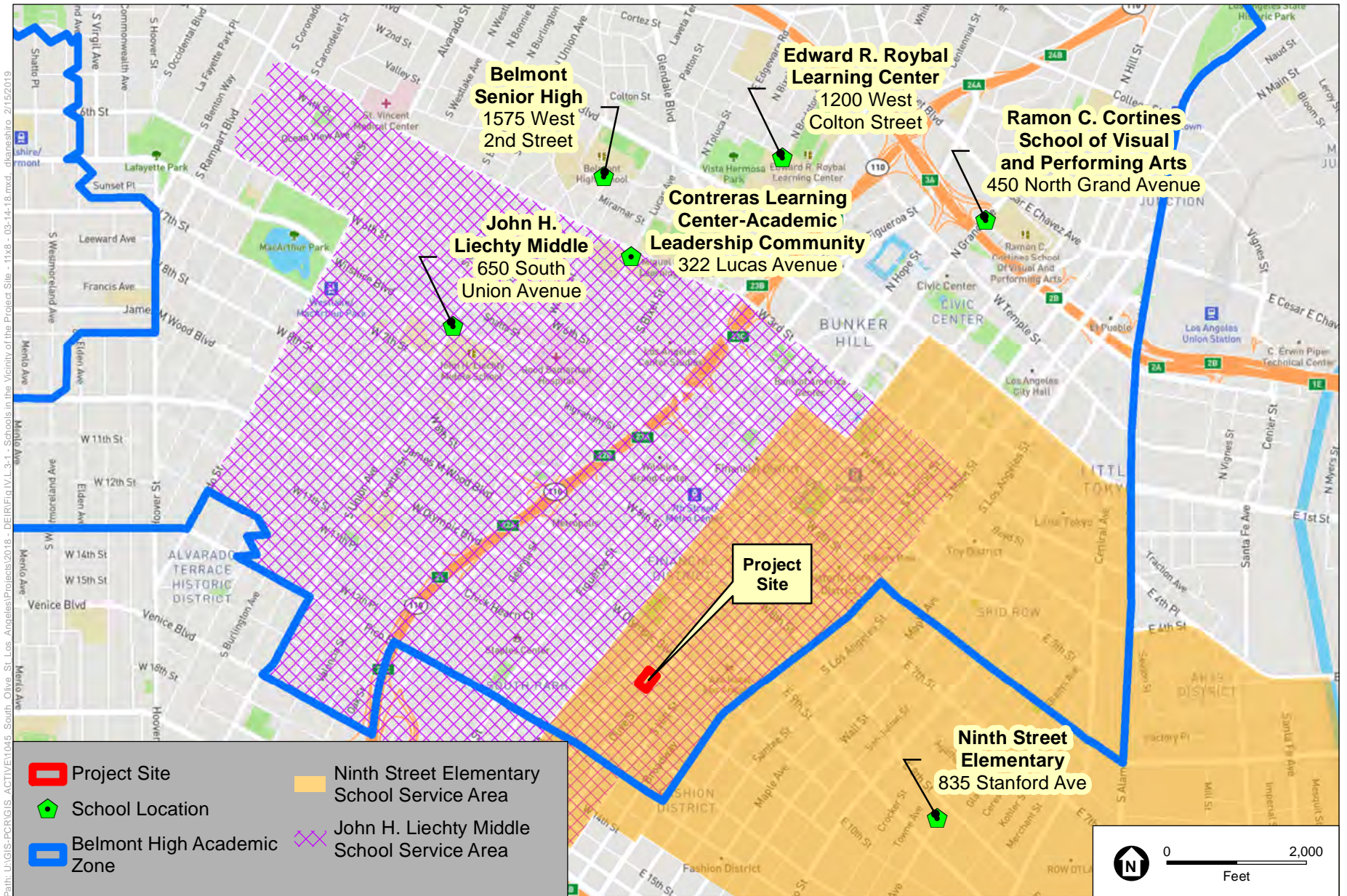
¹⁴ Los Angeles Unified School District, Facilities Services Division, FSD Bond Program. <http://www.laschools.org/new-site/>. Accessed March 22, 2019.

¹⁵ Los Angeles Unified School District, Local District West Map, dated June 2015, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/34/LocalDistricts_LetterSize.png. Accessed February 2018.

¹⁶ Los Angeles Unified School District, Office of School Design Options, Belmont Zone of Choice 2018-2019, Portfolio of Small School Options, pp. 1-2, <https://achieve.lausd.net/site/handlers/filedownload.ashx?moduleinstanceid=27825&dataid=59665&FileName=MASTER%20%20Belmont%20%20ZOC%20Brochure%202018-19%20.pdf>. Accessed October 2018.

¹⁷ Los Angeles Unified School District, Office of School Design Options, Belmont Zone of Choice 2018-2019, Portfolio of Small School Options, pp. 1-2, <https://achieve.lausd.net/site/handlers/filedownload.ashx?moduleinstanceid=27825&dataid=59665&FileName=MASTER%20%20Belmont%20%20ZOC%20Brochure%202018-19%20.pdf>. Accessed October 2018.

¹⁸ Los Angeles Unified School District, School Board Approves 2017-18 School Calendar, January 10, 2017, <https://home.lausd.net/apps/news/article/656055>. Accessed October 2018.



SOURCE: Open Street Map, 2018.

1045 Olive Project
Figure IV.L.3-1
 Schools in the Vicinity of the Project Site

**TABLE IV.L.3-1
EXISTING CAPACITY AND ENROLLMENT OF LAUSD SCHOOLS SERVING THE PROJECT SITE**

School	Distance/ Direction From Project Site ^a	Current Capacity ^b	Resident Enrollment ^c	Actual Enrollment ^d	Current Seating Overage (shortage) ^e
Ninth Street Elementary School (K-5)	0.80 mile southeast	360	287	342	73
John Liechty Middle School (6-8)	1.0 mile northwest	1,104	1,600	989	(496)
Belmont High School Zone of Choice (total) 7 schools listed below	N/A	7,041	6,932	5,331	109
Miguel Contreras LC ^f – School of Academic Leadership Community (9-12) 322 S. Lucas, Los Angeles	1 mile north	453	--	431	--
Miguel Contreras LC – School of Business and Tourism (9-12) 322 S. Lucas, Los Angeles	1 mile north	511	--	446	--
Miguel Contreras LC - School of Social Justice (9-12) 322 S. Lucas, Los Angeles	1 mile north	521	--	477	--
Miguel Contreras LC LA - School of Global Studies (9-12) 322 S. Lucas, Los Angeles	1 mile north	392	--	344	--
Belmont High School (9-12) 1575 W. 2 nd Street, Los Angeles	1.4 miles north	1,861	--	975	--
Ramon C. Cortines - School of Visual & Performing Arts (9-12) 450 N. Grand Avenue, Los Angeles	1.6 miles northeast	1,796	--	1,470	--
Edward R. Roybal Learning Center (9-12) 1200 W. Colton Street, Los Angeles	1.4 miles northeast	1,507	--	1,188	--

Notes:

^a Approximate distance/direction from Project Site in miles is a straight line distance, not a drive distance.

^b School's operating capacity for the reported school year. The maximum number of students the school can serve during the reported school year, with the school's classroom utilization, and while operating on its reported calendar. Excludes capacity allocated to charter co-locations. Includes capacity for magnet programs.

^c The total number of students living in the school's attendance area and who are eligible to attend the school. Includes magnet students.

^d The number of students actually attending the school at the start of the reported school year, including magnet students.

^e Current capacity minus residential enrollment.

^f LC stands for Learning Community.

SOURCE: Rena Perez, Director, Los Angeles Unified School District, Facilities Services Division, Written Correspondence, January 11, 2018. (Appendix M-3 to this Draft EIR.)

As shown in Table IV.L.3-1, both the Ninth Street Elementary School and the Belmont High School Zone of Choice are currently operating within capacity, while the John Liechty Middle School is not operating within capacity. The Ninth Street Elementary School, at 835 Stanford Avenue, is located about 0.80 miles southeast of the Project Site. Based on the school's current capacity of 360 students and a residential enrollment of 287 students, the school has an estimated available capacity of 73 seats. John H. Liechty Middle School, at 650 South Union Avenue, is located about 1.0 miles northwest the Project Site. Based on the school's current capacity of 1,104 students and a residential enrollment of 1,600 students, the school has a shortage of 496 seats. However, the actual enrollment of 989 students is 115 seats less than the current capacity; therefore, based on actual enrollment, there is currently available capacity at the school.

3. Project Impacts

a) Thresholds of Significance

In assessing impacts related to school facilities in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the thresholds of significance for the Project. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA guidelines, the Project would have a significant impact related to school facilities if it would:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities (i.e., schools), need for new or physically altered governmental facilities (i.e., schools), the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.***

The L.A. CEQA Thresholds Guide identifies the following criteria to evaluate schools:

- The population increase resulting from the proposed project, based on the increase in residential units or square footage of non-residential floor area;
- The demand for school services anticipated at the time of project build-out compared to the expected level of service available. Consider, as applicable, scheduled improvements to LAUSD services (facilities, equipment, and personnel) and the project's proportional contribution to the demand;
- Whether (and the degree to which) accommodation of the increased demand would require construction of new facilities, a major reorganization of students or classrooms, major revisions to the school calendar (such as year-round sessions), or other actions which would create a temporary or permanent impact on the school(s); and

- Whether the project includes features that would reduce the demand for school services (e.g., on-site school facilities or direct support to LAUSD).

b) Methodology

The analysis of enrollment effects on schools is based on the ability of LAUSD school facilities to accommodate the potential increase in students generated from development of the Project. The analysis estimates the number of students that would be generated by the Project using LAUSD student generation rates, and focuses on whether LAUSD school facilities expected to serve the Project would have sufficient available capacity to accommodate these students. School planning for future enrollments is done by the LAUSD at five-year intervals, and is based on the estimated future residential enrollment (i.e. estimated number of eligible resident students). Current and projected enrollments/capacities use the 2016-2017 school year (the latest school year for which data is available) as a baseline. The analysis addresses all levels of education facilities operated by LAUSD (i.e., elementary, middle, and high schools) and focuses on the schools that would serve the Project. It also addresses state regulations and cumulative development fees from the related projects, as discussed in the cumulative impacts analysis below, as a mechanism for providing new school facilities and addressing school impacts from the Project.

c) Project Characteristics

No specific Project Design Features are proposed with regard to schools.

d) Project Impacts

Threshold a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities (i.e., schools), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools? Less than Significant Impact.

(1) Construction

During construction, the Project would require construction employees who would be hired from a mobile regional construction work force that moves from project to project. Given the mobility and temporary durations of work at a particular site, construction employees would not be expected to relocate residences within this region or move from other regions as a result of the Project. Therefore, Project construction would not generate new students needing to attend local schools. There are no schools located in the immediate vicinity of the Project Site. As indicated in Figure IV.L.3-1 the nearest public LAUSD school is Ninth Street Elementary School, located approximately 0.8 mile to the

southeast and separated from the Project Site by intervening development. Other school facilities in the area, including the LA Child Care and Development Council (daycare center), and LAUSD Los Angelitos Early Education Center, are located approximately 1,000 feet from the Project Site, and are likewise separated from the Project Site by intervening development. There would be no Project-related construction staging or road closures at or adjacent to these locations, and potential construction effects such as noise would be buffered by distance and intervening development. Therefore, Project construction activities would not adversely affect the performance of students at nearby schools; and schools could operate from their existing facilities. **New or physically altered school facilities would not be required. Impacts would be less than significant; and no mitigation measures would be required.**

(2) Operation

During operation, the Project would include 794 multi-family residential units that would contribute new students to local LAUSD schools. The Project's commercial/restaurant development would add a small number of employees to the vicinity that might be associated with additional students, however such contribution would be negligible (estimated at less than one student). LAUSD has established student generation rates for a variety of uses including residential development (multi-family) as well as other employment generating uses, e.g. retail, hotel, industrial and office uses. An estimate of the number of students that would be generated by the Project's residential and commercial development is provided in **Table IV.L.3-2, *Estimated Number of Students to be Generated by the Project***. As stated in Table IV.L.3-2, the Project is estimated to generate 131 elementary school students, 36 middle school students, and 75 high school students for a total of 242 students.

The actual number of the Project's projected student generation is likely to be less than estimated in Table IV.L.3-2, which is based on LAUSD generation factors. This Project has 60 percent single or one-bedroom units, and as such would be less likely to generate a larger number of school-aged children as compared to dwelling units with more bedrooms. This analysis is also conservative in that it assumes that none of the future Project residents with families would already have students attending the affected schools. Families may choose to take advantage of LAUSD's open enrollment policy, which allows students anywhere in LAUSD to apply to any regular, grade-appropriate public school in the City with designated open seats, other than the schools serving the Project Site.¹⁹ Furthermore, a portion of the Project's school-aged children may choose to attend private or charter schools, thus reducing attendance at LAUSD schools, which is not reflected in this analysis. For these reasons, the above analysis is considered conservative and likely overestimates the Project's actual potential to generate new students.

¹⁹ Los Angeles Unified School District, K-12 Open Enrollment, <https://achieve.lausd.net/Page/11039>. Accessed October 2018.

TABLE IV.L.3-2
ESTIMATED NUMBER OF STUDENTS TO BE GENERATED BY THE PROJECT

Land Use	Amount of Development	Elementary School	Middle School	High School	Total
Residential ^b	794 units	131	36	75	242
Commercial/ Restaurant ^c	12,504 sq.ft.	0	0	0	0
Total		131	36	75	242

^a Student Generation Rates for Residential Uses are taken from the School Facilities Needs Analysis 2012, LAUSD, September 2012. Student Generation rates for retail/restaurant uses are taken from the 2010 Commercial/Industrial Development School Fee Justification Study, LAUSD, September 27, 2010, the most recent data broken down by school type.

^b Based on the rate for Multi-family residential uses (per unit): Elementary = 0.1649; Middle School = 0.045; High School = 0.0943. 794 units x 0.1649 = 131 elementary students. 794 units x 0.045 = 36 middle school students. 794 units x 0.0943 = 75 high school students. Total students generated by residential uses = 131+36+75 = 242 students.

^c School generation rates for commercial/restaurant uses is per 1,000 square feet, as follows: Elementary = 0.0178; Middle School = 0.0089; High School = .0111. The total number of students for all school types generated by 12,504 square feet at 0.0378 students/1,000 square feet would be less than 0.5 students.

SOURCE: ESA, 2018.

Students generated by the Project if not attending private or charter schools would attend Ninth Street Elementary School, John Liechty Middle School, and a high school within the Belmont High School Zone of Choice. Information regarding LAUSD estimates of 2017-2018 capacities and enrollments at the local schools is shown in Table IV.L.3-1. Adding the Project's conservatively estimated 136 elementary school students to the available seating capacity of 73 seats at Ninth Street Elementary School results in a shortage of 58 seats. Adding the estimated 36 middle school students to the current seating shortage of 496 students at Liechty Middle School increases the shortage to 532 students. However, addition of the 36 middle school students to the actual enrollment (as opposed to residential enrollment, which is higher and based on the population in a school's service area) indicates that there would still be 70 seats available for additional students. Adding the Project's estimated 75 high school students to the available seating capacity of 109 seats in the Belmont High School Zone of Choice results in an overage of 34 available seats.

LAUSD plans for future enrollment based on 5 year projections of student enrollments provided by LAUSD for this Project, (i.e. the school year ending in 2022, the date closest to the Project build out year of 2023), is shown in **Table IV.L.3-3, Projected Year 2022 Capacity and Enrollment of LAUSD Schools with Project**. Table IV.L.3-3 also shows the contributions of the Project's students to the future enrollments.

TABLE IV.L.3-3
PROJECTED YEAR 2022 CAPACITY AND ENROLLMENT OF LAUSD SCHOOLS WITH PROJECT

School	Projected Capacity	Projected Resident Enrollment	Projected Seating Overage/ (Shortage)	Project-Generated Students	Projected Enrollment With Project	Projected Seating Overage/ (Shortage) With Project
Ninth Street Elementary	324	381	(57)	131	512	(188)
John Liechty Middle School	1,027	1,755	(728)	36	1,791	(764)
Belmont High School Zone	6,618	6,880	(262)	75	6,955	(337)

SOURCE: LAUSD FSD

As indicated therein, all of the schools serving the Project Site are expected to exceed the available capacity in 2022 without the Project as LAUSD bases its conclusions regarding overcrowding on resident enrollment. It may be noted that if the variations between actual enrollment and residential enrollment were to be similar to those occurring today, there would be excess seating at the Belmont High School Zone of Choice, and the seating shortage would be substantially reduced at the John Liechty Middle School.²⁰ When compared to the projected seating capacity based on resident enrollment, Project-generated students would increase potential seating shortages at the three schools.

The projected school enrollments are based on LAUSD projections for new development that take into account an assessment of anticipated growth in student enrollments. The estimates of seating shortages are conservative as they do not take into account students choosing to attend other LAUSD schools located farther from their home attendance area (e.g., charter schools, or schools of greater convenience), students enrolling in private schools, students already residing within the school boundaries and home schooling. Future new students could potentially be accommodated through the use of such mechanisms as temporary classrooms, additions to existing schools, increased classroom size, families taking advantage of LAUSD's open enrollment policy, and use of multi-track calendars. Also some students may be accommodated by the allocation of seats designated for residential enrollment but not actually occupied.²¹ LAUSD indicates regarding the Project that "no new school construction is planned."²² As such, the Project

²⁰ The 2016-2017 residential enrollment at John Liechty Middle School is 1,600 students and the actual enrollment is 989 students. This means there is capacity for 611 students above current actual enrollment. If the additional 611 student capacity were to be similar in 2022, the projected seating overage would be 153 in contrast to the 764 seats reflected in Table IV.L.3-3.

²¹ As reflected in Table IV.L.3-1, above, the data for the 2016-2017 school area show that the actual enrollment at John H. Liechty Middle School is 62 percent of the estimated residential enrollment upon which this analysis is based; and it is 72 percent at the Belmont High School Zone of Choice.

²² Los Angeles Unified School District, Rena Perez, Director, Facilities Services Division, Written Correspondence, January 11, 2018. Included in Appendix M-3 of this Draft EIR.

would not result in the need for a new school facility, and therefore, there would be no impact from the construction of such a facility. Nevertheless, pursuant to Section 65995 of the California Government Code, the Project Applicant would be required to pay fees in accordance with SB 50. Payment of such fees is intended for the general purpose of addressing the construction of new school facilities, whether schools serving the Project in question are at capacity or not and, pursuant to Section 65995(h), payment of such fees is deemed full mitigation of a project's development impacts. **As such, with payment of these fees, Project's operations-related impacts to schools would be less than significant.**

e) Cumulative Impacts

Chapter III, *General Description of Environmental Setting*, of this Draft EIR, identifies 195 related projects (of which four are infrastructure projects) that are anticipated to be developed within the vicinity of the Project Site. For purposes of this cumulative impact analysis on schools, only those related projects located within the attendance boundaries of the schools that would serve the proposed Project (i.e., Ninth Street Elementary, John H. Liechty Middle School, and the schools within the Belmont High School Zone of Choice) have been considered.

Similar to the Project, the number of students anticipated to be generated by the related projects was estimated based on the type and amount of development proposed and LAUSD student generation rates for that development. **Table IV.L.3-4, *Cumulative Student Generation***, shows the number of students projected to be generated by the related projects within the same school attendance boundaries as the Project Site. As shown in Table IV.L.3-4, the related projects together with the proposed Project would potentially generate an estimated 4,583 students at Ninth Street Elementary, 1,363 students at John H. Liechty Middle School, and 3,789 students within the Belmont High School Zone of Choice.

**TABLE IV.L.3-4
CUMULATIVE STUDENT GENERATION**

Land Use	Elementary School	Middle School	High School	Total
Related Projects ^a	4,452	1,327	3,723	9,502
Project Students	131	36	75	242
Cumulative Totals	4,583	1,363	3,789	9,742

^a The related projects contributing to the school enrollments are listed in Table III-1 in Chapter III of this Draft EIR. Their locations are shown in Figure III-1. The related projects within the Ninth Street Elementary School attendance area includes the following: Related Projects 1, 3, 6, 7, 12, 15, 16, 18, 22, 23, 28, 29, 31, 32, 35, 36, 37, 41, 42, 44, 48, 49, 51, 54, 55, 57, 59, 60, 61, 63, 68, 70, 72, 74, 75, 79, 80, 81, 82, 87, 96, 97, 99, 100, 101, 103, 104, 105, 108, 109, 125, 126, 128, 129, 130, 231, 132, 133, 134, 135, 138, 141, 142, 143, 144, 145, 148, 153, 155, 156, 157, 158, 159, 160, 161, 162, 165, 168, 172, 183, 186, 187, 188, 189, 190, 191.

The related projects within John H. Liechty Middle School attendance area include the following: Related Projects 1, 2, 3, 6, 7, 8, 12, 14, 15, 16, 18, 20, 22, 23, 28, 29, 31, 32, 34, 35, 36, 37, 38, 39, 41, 44, 46, 47, 48, 49, 50, 52, 53, 54, 59, 60, 61, 65, 67, 68, 69, 110, 111, 112, 113, 117, 119, 121, 123, 129, 132, 135, 140, 141, 143, 145, 146, 154, 158, 166, 181, 184, 185, 187, 190, 191.

The related projects within Belmont High School Zone of Choice Area include all the related projects except Related Projects 2, 4, 7, 10, 11, 13, 14, 17, 19, 21, 26, 27, 33, 35, 43, 51, 55, 56, 62, 72, 73, 76, 77, 78, 79, 84, 89, 91, 94, 95, 98, 108, 109, 111, 113, 114, 115, 118, 120, 122, 125, 127, 128, 132, 134, 137, 141, 144, 147, 148, 149, 150, 152, 160, 163, 164, 165, 168, 169, 173, 174, 176, 177, 178, 182, 183, 184, 186, 188, 189, 190, 191.

SOURCE: ESA, 2018.

Table IV.L.3-5, *Projected Future Capacity and Enrollment of LAUSD Schools with Cumulative Development*, illustrates the cumulative projected enrollment, capacity, and seating at Ninth Street Elementary School, John H. Liechty Middle School, and the Belmont High School Zone of Choice.

**TABLE IV.L.3-5
PROJECTED FUTURE CAPACITY AND ENROLLMENT OF LAUSD SCHOOLS WITH CUMULATIVE DEVELOPMENT**

School	Projected Future Conditions			Projected Future Conditions With Cumulative Projects		
	Capacity	Resident Enrollment	Seating Overage/ (Shortage)	Cumulative Project Students	Resident Enrollment	Seating Overage/ (Shortage)
Ninth Street Elementary (1-5) 835 Stanford Ave., Los Angeles	324	381	(57)	4,583	4,964	(4,640)
John H. Liechty Middle School (6-8) 650 S. Union Ave., Los Angeles	1,027	1,755	(728)	1,363	3,118	(2,091)
Belmont High School Zone of Choice (total) ^f :	6,618	6,880	(262)	3,798	10,678	(4,060)

SOURCE: ESA, 2018. Based on the list of schools serving the Project, and the associated projected capacity and enrollment information, from Rena Perez, Director, Los Angeles Unified School District – Facilities Services Division: School Management Services, Master Planning and Demographics, January 11, 2018. Included in Appendix M-3 of this Draft EIR.

Based on projected 2022 capacity and enrollment estimates provided by LAUSD and the student generation estimates for the Project and the related projects discussed above, the Project together with the related projects would: increase the seating shortage at Ninth Street Elementary School from 57 to 4,640, increase the seating shortage at John H. Liechty Middle School from 728 to 2,091, and increase the seating shortage within the Belmont High School Zone of Choice from 262 to 4,060.

The estimate of cumulative contributions to school enrollments may be overstated because: (1) this analysis does not take into account that some of the related projects would not be constructed and occupied within the timeframe analyzed; (2) the demolition of existing uses to accommodate the planned new development would eliminate double counting of some students currently accounted for; and (3) some new students may attend facilities outside of the LAUSD (e.g. private schools), or other schools outside of the local school boundaries (e.g., charter schools). As was the case above, LAUSD can seek to accommodate future students through such mechanisms as added temporary classrooms, additions to existing schools, increased class-room size, families taking advantage of LAUSD's open enrollment policy, and the use of multi-track calendars. As noted above, LAUSD indicated that there are no plans for the construction of new school facilities in the Project area, as the emphasis is now on modernization of existing school facilities.^{23,24}

Cumulative increases in student population due to related projects and other cumulative growth would be identified and addressed through the City's annual programming and budgeting processes. LAUSD resource needs would be identified and monies allocated according to the priorities at the time. Any requirement for a new school, or the expansion, consolidation, or relocation of an existing school would also be identified through this process, the impacts of which would be addressed accordingly. Furthermore, over time, LAUSD would continue to monitor population growth and land development throughout the City and identify additional resource needs, including staffing, equipment, other special programs, and possibly school expansions or new school construction, which may become necessary to create sufficient student capacity. LAUSD has no known or proposed plans to expand schools or construct new facilities in the Community Plan area. Nonetheless, projects involving the construction or expansion of a school would be addressed independently pursuant to CEQA. As indicated previously, pursuant to Section 65995(h) of the California Government Code, payment of SB 50 fees by new development is deemed full mitigation of a project's development impacts on schools. The Project and the related projects are required to pay SB 50 fees under State law as regulatory compliance measures. **Therefore, the cumulative impacts on schools would be less**

²³ Los Angeles Unified School District, Rena Perez, Director, Facilities Services Division, Written Correspondence, January 11, 2018. Included in Appendix M-3 of this Draft EIR.

²⁴ Los Angeles Unified School District, Facilities Services Division, Strategic Execution Plan 2018, p. 26, http://www.laschools.org/documents/download/about_fsd/sep/2012_consolidated_strategic_execution_plan/2018_Facilities_Services_Division_SEP.pdf?version_id=314442931. Accessed October 2018.

than significant with the regulatory payment of the school impact fees, and no further mitigation measures would be required.

f) Mitigation Measures

Potential impacts to schools as a result of Project implementation would be less than significant with payment of fees pursuant to Government Code Section 65995. No mitigation measures would be required.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.L.4 Libraries

1. Introduction

This section describes existing library facilities in the Project area, and analyzes potential impacts on these facilities that could occur as a result of the Project. The analysis considers available library capacity and whether it is sufficient to accommodate the population growth generated by the Project. The analysis is based, in part, on library standards and capacity data provided by City of Los Angeles (City) Public Library (LAPL) in correspondence dated February 26, 2018. This correspondence is included in Appendix M-4 of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

(1) Local

(a) *City of Los Angeles General Plan Framework*

The City's General Plan Framework, adopted in December 1996 and readopted in August 2001, provides general guidance regarding land use issues for the entire City and defines Citywide policies regarding land use, including infrastructure and public services. Direction regarding the provision of adequate library services and facilities to meet the needs of the City's residents are set forth in Objectives 9.20 and 9.21. Objective 9.20 proposes to adopt a Citywide library service standard by the year 2000. Objective 9.21 proposes to ensure library services for current and future residents and businesses. The implementation plans and policies set forth in the General Plan Framework were addressed through the 2007 LAPL Branch Facilities Plan (Facilities Plan) (discussed further below).¹

(b) *Central City Community Plan*

The Project Site is located within the 2003 Central City Community Plan (Community Plan) Area; and is located in closest proximity to the Richard J. Riordan Central Library (Central Library), the Little Tokyo Branch Library and the Pico Union Branch Library. The Community Plan includes one policy that pertains to library services: Policy 8-1.1 encourages flexibility in siting libraries in mixed-use projects, pedestrian-oriented areas, transit oriented districts, and similarly accessible facilities.² A program included under the

¹ City of Los Angeles, Department of City Planning, City of Los Angeles General Plan Framework, <https://planning.lacity.org/cwd/framwk/chapters/09/09.htm#libraries>, Objectives 9.20 and 9.21. Accessed March, 2018.

² City of Los Angeles Department of City Planning, Central City Community Plan, <https://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>, page III-14. Accessed April 27, 2018.

policy supports the locations identified above as desirable for new libraries and recommends that the policy be considered when the Library Department and decision-makers review and approve sites for new libraries.

(c) *Los Angeles Public Library Branch Facilities Plan*

The Facilities Plan, which was first adopted in 1988 and later revised in 2007, guides the construction of branch libraries and specifies standards for the size and features of branch facilities based on the population served in each community.³ The Facilities Plan also outlines the facilities expansion guidelines of the libraries within the City based on the location and population served in each community. Under the Facilities Plan, the service population for a branch library is determined by the size of the facility as set forth in **Table IV.L.4-1, LAPL Branch Facilities Plan – Library Building Size Standards**.

TABLE IV.L.4-1
LAPL BRANCH FACILITIES PLAN – LIBRARY BUILDING SIZE STANDARDS

Library Type	Population Served	Size of Facility (sf)
Local Branch	< 45,000	12,500
Local Branch	> 45,000	14,500
Regional Branch	Unspecified	≤ 20,000
Central Library	System-Wide	Unspecified
Level at which new Branch Library is recommended	90,000	12,500-14,500

SOURCE: Los Angeles Public Library, Building on Success: Strategic Plan, 2007–2010, http://www.lapl.org/sites/default/files/media/pdf/about/Strategic_Plan.pdf. Accessed January 18, 2018. Also, Correspondence (email) from Tom Jung, Los Angeles Public Library, February 26, 2018.

The 1988 Facilities Plan was implemented with two bond measures: the 1989 Bond Program and the 1998 Bond Program.⁴ In 1989, City voters approved implementation of Phase I of the Branch Facilities Plan through the 1989 Bond Program which provided \$53.4 million for 26 library projects. Under Phase I, the 1988 Facilities Plan proposed to obtain new sites for building, renovating, and expanding libraries that were unable to serve the community sufficiently and/or were damaged by the Whittier earthquake. LAPL also obtained additional funds from the Community Development Block Grant Award of federal funds from the California State Library Proposition 85, as well as from Friends of

³ Los Angeles Public Library, Building on Success: Strategic Plan, 2007–2010, http://www.lapl.org/sites/default/files/media/pdf/about/Strategic_Plan.pdf. Accessed January 18, 2018.

⁴ Los Angeles Public Library, building on Success: Strategic Plan, 2007 – 2010, Building on Success. Page VI-1.

the Library groups, for a total branch construction program of \$108 million. Under the 1989 Bond Program, 29 libraries were built.⁵

On November 3, 1998, Los Angeles voters approved Proposition DD, also known as the 1998 Library Facilities Bond. The 1998 Library Facilities Bond, which was to be used to implement Phase II of the 1988 Facilities Plan, authorized \$178.3 million in bonds for funding the construction, renovation, improvement, or expansion of 32 new branch libraries. As a result of effective project management, four additional projects were added to the scope of the overall facilities program. The total of 36 projects were replaced with 18 new library facilities on the existing City-owned sites, 9 libraries were constructed on newly acquired sites, 5 new libraries were constructed on acquired sites in communities that previously did not have library services, and with the 4 additional projects, existing libraries were renovated and expanded.

The entire original 1988 Facilities Plan was completed by 2005.⁶ With the completion of the projects identified in the 1988 Facilities Plan, LAPL began planning for future library services and facilities needs for population growth projections to the year 2030. A revised 2007 Branch Facilities Plan was reviewed and approved by the Board of Library Commissioners on February 8, 2007, as the new strategic plan for future LAPL developments.⁷

In March 2011, the City approved Measure L to restore LAPL's service hours back to the levels available prior to the 2010 economic downturn.⁸ Through Measure L, LAPL would also be able to expand its services, collections and technology. The LAPL Strategic Plan 2015-2020 is a 5-year plan to detail expanded programs and services, referred to as Key Activities within the Plan, offered by LAPL.⁹

b) Existing Conditions

The Project Site is currently developed with commercial uses. Therefore, there is no residential demand generated at this time. However, the few existing Site employees may visit local libraries during their work-day.

As stated above, the LAPL system provides library services for the City. LAPL consists of the Central Library, eight regional branch libraries, and 64 community branch libraries, and 2,600 computer workstations with access to the internet and electronic databases.¹⁰

⁵ Los Angeles Public Library, Building on Success: Strategic Plan, 2007 – 2010, page VI-1. http://www.lapl.org/sites/default/files/media/pdf/about/Strategic_Plan.pdf. Accessed January 18, 2018.

⁶ Los Angeles Public Library, Building on Success: Strategic Plan, 2007 – 2010, page 4.

⁷ Los Angeles Public Library, Building on Success: Strategic Plan, 2007 – 2010, page VI-4.

⁸ Los Angeles Public Library, Strategic Plan 2015-2020, https://www.lapl.org/sites/default/files/media/pdf/about/LAPL_Strategic_Plan_2015-2020.pdf, page 3. Accessed January 18, 2018.

⁹ Los Angeles Public Library, Strategic Plan 2015-2020, page 6.

¹⁰ Los Angeles Public Library, About the Library, News Room, Los Angeles Public Library Facts 2013 (for fiscal year 2013-14), <https://www.lapl.org/about-lapl/press/2013-library-facts>. Accessed April, 2018.

It also has a multimedia inventory of over 6.5 million items.¹¹ All branch libraries provide free access to computer workstations that are connected to the LAPL's information network. In addition to providing internet access, these workstations enable the public to search LAPL's electronic resources including the online catalog, over 100 online databases, word processing, language learning, literacy, and a large collection of historic documents and photographs.¹² In addition, specially designed websites are provided for children, teens, and Spanish-speaking patrons.^{13,14}

LAPL is a member of the Southern California Library Cooperative (SCLC).¹⁵ SCLC is an association of 39 independent city and special district public libraries in Los Angeles and Ventura counties that shares resources to improve library service to the residents of all participating jurisdictions. Participation in this program enables mutual loan privileges and allows member libraries to receive compensation for such use.¹⁶

Most often people visit libraries in the vicinities of their homes. To the extent people visit libraries associated with other activities, such as visiting libraries close to work during their work day, these visits tend to be dispersed around the City and cancel each other out. As such, residential attendance provides an appropriate indicator of service demand. LAPL has identified six LAPL libraries within a two-mile radius of the Project Site that serve the Project Site, including the Central Library, Chinatown Branch Library, Echo Park Branch Library, Felipe de Neve Branch Library, Little Tokyo Branch Library, and Pico Union Branch Library.¹⁷ **Figure IV.L.4-1, LAPL Libraries in the Project Vicinity**, shows the location of these libraries in relation to the Project Site. **Table IV.L.4-2, LAPL Libraries in the Project Vicinity**, provides information regarding these libraries, including their addresses, distances from the Project Site, facility size, collection/circulation size, the number of staff, and the current service population.

¹¹ Los Angeles Public Library Strategic Plan 2015 – 2020, https://www.lapl.org/sites/default/files/media/pdf/about/LAPL_Strategic_Plan_2015-2020.pdf ---need to find 2,600 and confirm sources.

¹² Los Angeles Public Library, About the Library, News Room, Los Angeles Public Library Facts 2013 (for fiscal year 2013-14), <https://www.lapl.org/about-lapl/press/2013-library-facts>. Accessed April, 2018.

¹³ Los Angeles Public Library, KidsPath, <http://www.lapl.org/kids>. Accessed April, 2018.

¹⁴ Los Angeles Public Library, Español, <http://www.lapl.org/en-espanol>. Accessed April, 2018.

¹⁵ Southern California Library Cooperative, Member Libraries, <http://socallibraries.org/about/libraries>. Accessed January 18, 2018.

¹⁶ Southern California Library Cooperative, Home, <http://socallibraries.org/>. Accessed April, 2018.

¹⁷ Los Angeles Public Library email correspondence from Tom Jung, February 26, 2018; included in in Appendix M-4 of this Draft EIR.



SOURCE: Open Street Map, 2018.

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Figure IV.L.4-1
 LAPL Libraries in the Project Vicinity

**TABLE IV.L.4-2
LAPL LIBRARIES IN THE PROJECT VICINITY**

Library	Distance from Project Site (miles)	Facility Size (square feet)	Collection Size /Circulation	Staff	Current Service (Resident) Population
Richard J. Riordan Central Library 630 W. 5 th Street	0.70	538,000	2.6 million/ 1.2 million	390 Full-time and 250 Volunteers	3,792,662
Little Tokyo Branch Library 203 S. Los Angeles Street	1.15	12,500	66,634/ 142,247	10 Full-time; 44 Volunteers	45,796
Pico Union Branch Library 1030 S. Alvarado Street	1.30	12,500	46,562/ 129,660	10.5 Full time; 51 Volunteers	41,457
Chinatown Branch Library 639 N. Hill Street	1.70	14,500	74,709/ 193,627	13.5 Full-time; 74 Volunteers	11,225
Echo Park Branch Library 1410 W. Temple Street	1.80	17,543	43,689/ 93,418	9.5 Full-time; 88 Volunteers	52,842
Felipe de Neve Branch Library 2820 W. 6 th Street	2.00	9,273	35,424/ 104,076	9 Full-time; 22 Volunteers	110,861

SOURCE: Tom Jung, Los Angeles Public Library, email correspondence dated February 26, 2018.

The following data regarding the Central Library and branch libraries was provided by the LAPL in correspondence dated February 26, 2018.¹⁸ The Central Library is the closest library to the Project Site, located approximately 0.70-mile to the northeast. The Central Library is the third largest central library in the nation and serves as the headquarters for the LAPL.¹⁹ The Central Library is a 538,000 square foot facility that has 2.6 million volumes, an annual circulation of 1.2 million, 390 full-time staff and 250 volunteers, and a current service population of 3,792,662. The Central Library also has an extensive historical photograph collection and U.S. patents collection, and language learning and multi-media materials. Special facilities also include free Wi-Fi, wireless printing, computer reservations, meeting room rentals and zoom text for the visually impaired.

The Little Tokyo Branch Library is the second closest branch library to the Project Site, located about 1.15 miles to the northeast. This is a 12,500 square foot facility that has 66,634 volumes, an annual circulation of 142,247, 10 full-time staff and 44 volunteers, and a current service population of 45,796. Special facilities include free Wi-Fi, wireless

¹⁸ Los Angeles Public Library email correspondence from Tom Jung, February 26, 2018; included in Appendix M-4 of this Draft EIR.

¹⁹ Los Angeles Public Library, About the Central Library, <http://www.lapl.org/about-lapl/press/central-facts>. Accessed January 18, 2018.

printing, computer reservations, meeting room rentals, and zoom text for the visually impaired.

The Pico Union Branch Library is located approximately 1.30 miles to the northwest. This is a 12,500 square foot facility that has 46,562 volumes, an annual circulation of 129,660, 10.5 full time staff and 51 volunteers, and a current service population of 41,457. Special facilities include free Wi-Fi, wireless printing, computer reservations, meeting room rentals, and zoom text for the visually impaired.

The Chinatown Branch Library is located approximately 1.70 miles northeast of the Project Site. This is a 14,500 square foot facility that has 74,709 volumes with an annual circulation of 193,627, 13.5 full-time employees and 74 volunteers, and a current service population of 11,225. The Chinatown Branch Library provides special facilities, including free public Wi-Fi, wireless printing, computer reservation, meeting room rentals, and zoom text for the visually impaired.

The Echo Park Branch Library is located approximately 1.80 miles north of the Project Site. This is a 17,543 square foot facility that has 43,689 volumes, an annual circulation of 93,418, 9.5 full-time staff and 88 volunteers, and a current service population of 52,842. Special facilities include free Wi-Fi, wireless printing, computer reservations, meeting room rentals, and zoom text for the visually impaired.

The Felipe de Neve Branch Library is located approximately two miles northwest of the Project Site. This 9,273 square foot facility has 34,424 volumes, an annual circulation of 104,076, 9 full-time staff and 22 volunteers, and a current service population of 110,861. Special facilities include free Wi-Fi, wireless printing, computer reservations, meeting room rentals, and zoom text for the visually impaired.

Each of the LAPL branches listed above is also a virtual library with multiple computer workstations providing public access to LAPL's on-line library catalog, extensive information databases, and the Internet. Additionally, Story Telling and Reading volunteers read aloud with kids of all ages at the library to encourage improved reading skills and encourage an interest in books.

The LAPL does not currently have plans to expand any of the seven libraries serving the Project Site area, nor does it currently have plans to construct new libraries in the Project Site vicinity.²⁰

²⁰ Los Angeles Public Library, email correspondence from Tom Jung, February 26, 2018; included in Appendix M-4 of this Draft EIR.

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to library services in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as its threshold of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to library services if it would:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries.***

The L.A. CEQA Thresholds Guide identifies the following criteria to evaluate libraries:

- The net population increase resulting from the proposed project;
- The demand for library service anticipated at the time of project buildout compared to the expected level of service available. Consider, as applicable, scheduled improvements to library services (renovation, expansion, addition or relocation) and the project's proportional contribution to the demand; and
- Whether the project includes features that would reduce the demand for library services (e.g., on-site library facilities or direct support to LAPL).

b) Methodology

LAPL identifies service standards for service populations associated with each library location based on the 2010 Census (for the Central Library) and both the Los Angeles Times' Mapping L.A. (for all other libraries) and branch library community boundaries (for the branch libraries).²¹ Potential Project impacts on library services and facilities are therefore determined by identifying the primary library or libraries that serve the Project Site, identifying their existing service population and design capacity, and determining whether the Project-related residents would result in exceedance of the design capacity of these libraries; and whether the added demand would require the construction of new facilities to meet the added demand.

²¹ Los Angeles Public Library, email correspondence from Tom Jung, February 26, 2018.

For purposes of this analysis, the residential population of the Project is assumed to be 2.43 people per household, the average household size for multi-unit households in the City. This household size metric is used when considering Citywide service levels for the City, but provides a very conservative analysis when applied to areas like the Downtown area, where household sizes are smaller. The calculation of the residential population from the related projects is based on information provided in Section IV.J, *Population and Housing*, of this Draft EIR, as supported by information presented in Appendix L of this Draft EIR.

c) Project Characteristics

No specific Project Design Features are proposed with regard to libraries.

d) Analysis of Project Impacts

Threshold a) *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries? Less than Significant Impact.*

(1) Construction

The number of on-site construction workers during Project construction would vary on a day-to-day basis depending on the construction phase. The number of construction workers needed would vary on a day-to-day basis over the course of Project construction, ranging from an estimated 19 workers during the site preparation phase to a maximum of 400 workers, during the more intensive, overlapping construction phases. The Project's construction workers would be expected to be drawn primarily from the existing labor pool whose workers move between construction projects within the Los Angeles region on a short-term basis without needing to relocate their households. Construction workers traveling to and from the construction site could potentially patronize a library within the Project Site area, but such stops would be incidental and typical of workers throughout the region. As such, any direct or indirect increase in library usage at the libraries serving the Project Site during construction would be negligible, especially when spread over all six libraries serving the Project Site, including the Central Library located approximately 0.70-mile away. **Therefore, Project construction would not require new or expanded library facilities, and impacts would be less than significant and no mitigation measures are required.**

(2) Operation

The Project does not propose the construction of a new library facility. However, the Project would add to the demand for library services by providing added population within the Downtown area. The Project would include 794 new residential units which would generate an estimated 1,929 residents based on the average multi-unit household size in the City of 2.43 persons. However, this is a conservative estimate as household sizes in the Downtown area are typically smaller than the Citywide average. Assuming all of these residents are new to the Project Site area, which is also a conservative assumption, these residents would generate increased demand for library facilities and services in the Project area. A small number of Project employees may also visit local libraries; however, their contribution to demand would be negligible and would not affect library service levels.

As stated above, LAPL has identified the six LAPL libraries identified in Figure IV.L.4-1 and Table IV.L.4-2 as serving the Project Site. The Central Library, Little Tokyo Branch Library, and Pico Union Branch Library are the closest of these libraries, located approximately 0.70, 1.15, and 1.30-miles from the Project Site, respectively, and thus would be the primary facilities serving the Project. The other three LAPL branch libraries (i.e., Chinatown, Echo Park, and Felipe de Neve Branch Libraries) might also serve Project residents, although it is expected that such service would be at a lesser degree given their greater distances from the Project Site (i.e., approximately 1.70 to approximately 2.0 miles from the Project Site).

The Central Library serves the entire LAPL service area and provides resources that go beyond those provided through the regional and local branch libraries. As reported in Table IV.L.4-2, the Central Library has an existing service population of 3,792,662. While, as reported in Table IV.L.4-1, the LAPL Branch Facilities Plan does not identify a design capacity criterion (e.g., a maximum service population) for the Central Branch, the Project's conservatively estimated population of 1,929 people would represent only approximately 0.05 percent of the existing service population of this facility. Therefore, even if all the Project's service demand were directed to the Central Library rather than being distributed among the six libraries that LAPL has indicated serve the Project Site, the Project would not result in a substantial increase in demand for service from the Central Library.

The Little Tokyo Branch Library, as reported in Tables IV.L.4-1 and IV.L.4-2, is operating at just slightly above capacity, as the LAPL Branch Facilities Plan identifies the design capacity criterion for this facility as less than 45,000 people, with the current service population of this facility at 45,796. Assuming that all of the Project's 1,929 population were to choose to use the Little Tokyo Branch Library rather than to distribute their patronage among the six libraries, which is a very conservative and highly unlikely assumption, the service population of the Little Tokyo Branch would increase to 47,725. While this scenario would mean that this library would continue to be slightly above the design capacity criterion for its facility, it would not trigger the LAPL Branch Facilities Plan threshold (e.g., a service population of 90,000) for requiring a new branch library. Further,

LAPL has stated that there are no planned improvements to add capacity to this library through expansion and no plans to develop a new library in this area.²²

The Pico Union Branch Library, as reported in Tables IV.L.4-1 and IV.L.4-2, is operating at under-capacity as the LAPL Branch Facilities Plan identifies the design capacity criterion for this facility as less than 45,000 people, while the current service population of this facility is only 41,457. Assuming that all of the Project's 1,929 population were directed to the Pico Union Branch Library rather than being distributed among the six libraries that LAPL has indicated serve the Project Site, which is a very conservative and highly unlikely assumption, the service population of the Pico Union Branch Library would only increase to 43,386. As this population would be below the design capacity criterion for this facility, the Project would not result in a substantial increase in demand for service from the Pico Union Branch Library and would not trigger the need for a new library facility.

Given the greater distances of the other branch libraries from the Project Site than the Central Library, Little Tokyo, and Pico Union Branch Libraries (the three libraries that would primarily serve the Project), it is unrealistic to consider a scenario where all of the Project's 1,929 residents would focus their demand on any one of these other facilities. Furthermore, due to the distance and lack of convenient access to the other branch libraries, contributions of Project residents to library demand at any one of these libraries would be negligible.

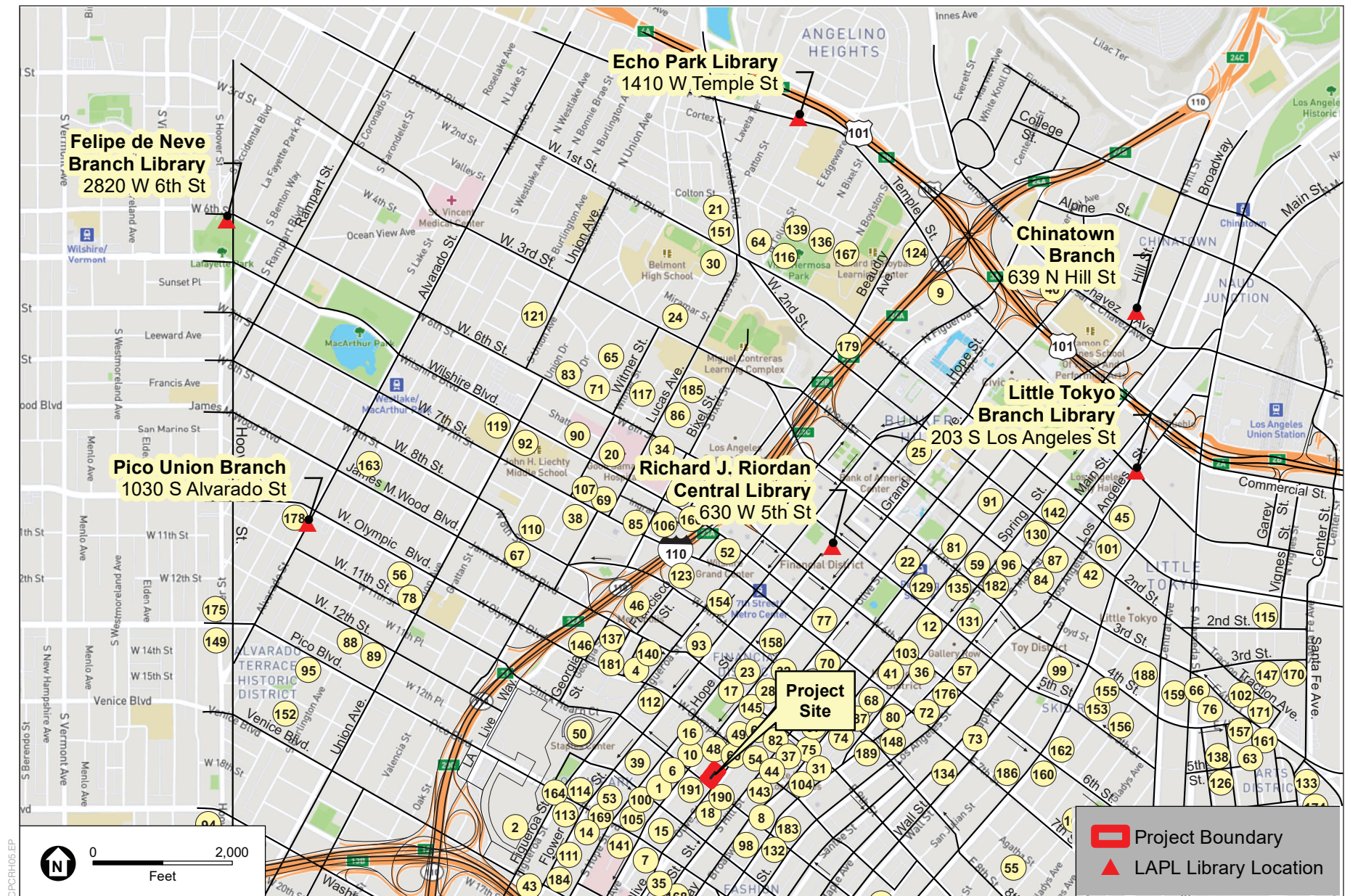
Based on the above factors, the Project would not require new or expanded library facilities in order to maintain acceptable performance objectives for libraries and therefore Project impacts from the construction of new or physical altered libraries would be less than significant. No mitigation measures are required.

e) Cumulative Impacts

The City has identified 195 related projects for the Project (four of which are infrastructure projects) as listed in Table III-1 of Chapter III, *General Description of the Environmental Setting*, of this Draft EIR. Since the LAPL uses residential population as the primary basis for evaluating library facilities sizing needs, the cumulative impacts analysis is based on the population that would be generated by those related projects that include a residential component.

The geographic context for the cumulative analysis for libraries is the area in which the related projects are located, an area encompassing a radius of approximately 1.5 miles from the Project Site. The boundaries of the area in which the related projects are located, is shown in **Figure IV.L.4-2, Related Projects Served by LAPL Libraries**. Three of the six LAPL libraries identified as serving the Project are located within this area: the Central Library, the Pico Union Library and the Little Tokyo Library. The remaining three libraries are located beyond this radius: Echo Park, Chinatown, and Felipe de Neve Branch Libraries.

²² Los Angeles Public Library email correspondence from Tom Jung, February 26, 2018, pp. 2, 3, 5, 6, 8 and 9; included in Appendix M-4 of this Draft EIR.



SOURCE: The Mobility Group, 2019

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Figure IV.L.4-2
Related Projects Served by LAPL Libraries

Of the 195 related projects, 153 related projects contain a residential component and thus would have the potential to contribute with the Project to potential cumulative impacts to libraries. These related projects would generate an estimated 120,742 residents; and 122,671 cumulative residents when combined with the Project's population estimate, based upon the assumption of an average household size of 2.43 people per household, for the related projects and the Project. However, this is a conservative estimate, as the related projects' household sizes would likely be more in keeping with other developments in the Downtown area with smaller household sizes, as compared to the larger household sizes in lower density parts of the City. This population estimate may also be lower as some of the related projects may not be built, may be reduced in size, or may require the demolition of existing housing to accommodate the new development.

The population generated by the cumulative projects would likely use facilities with easiest accessibility (typically nearest to home, but also possibly along the work route or proximity to a school in the vicinity of the local library) and would distribute their demand somewhat to the multiple libraries serving the Project area. Given the preponderance of related projects, particularly larger projects, being located in the Downtown area, it is expected that a majority of library patrons generated from cumulative projects, but not all, would go to the Central Library and Little Tokyo Branch Library. These two libraries are closest to the Project Site and the largest proportion of the related projects. Further, they are located within the Downtown area with its pedestrian grid, and numerous DASH lines for local accessibility. The Central Library is a regional serving facility and the Little Tokyo Library has a service population that is approximately 50 percent of that required to trigger the construction of a new facility.

As indicated in the analysis for the Project above, total demand for the cumulative residential development would be spread across the six service libraries, limiting the cumulative demand at any one library, notably at the libraries that are more distant from the Project Site. Although the related projects may be served by other libraries, beyond the six evaluated in this Draft EIR, such libraries would be beyond the service area of the Project and therefore, the Project would not have a cumulatively considerable impact on such libraries.

As also described above, previous bond programs in 1989 and 1998 paved the way for the construction, renovation improvement or expansion of 65 physical library facilities, which were completed by 2005; and LAPL has stated that there are no planned improvements to add capacity to the libraries in the Projects service area.²³ If a new library were determined to be warranted by LAPL, the Downtown area is highly developed, and therefore presumably, any potential future infill site for a library would foreseeably be an infill lot less than an acre in size. The development of a library is unlikely to result in significant impacts. Any such speculative projects involving the construction or expansion of a library would be addressed independently pursuant to CEQA and would likely meet the requirements for the use of a Class 32 categorical infill exemptions (CEQA Guidelines

²³ Los Angeles Public Library email correspondence from Tom Jung, February 26, 2018, pp. 2, 3, 5, 6, 8 and 9; included in Appendix M-4 of this Draft EIR.

Section 15332). Accordingly, the potential need for additional library services is not an environmental impact that the Project would be required to mitigate.

With the shift in technology from books to computers, the demand for library facilities is changing. As stated above, members of LAPL have access to thousands of podcasts, audiobooks, media publications, and instructional content online and via smartphone applications made available to library patrons. The availability of such resources reduces the demand for physical library space. Recognizing these facts, the LAPL Strategic Plan 2015-2020 places emphasis on the employment of new technology for meeting future needs and includes objectives for increasing its digital collections, e-mail circulation and use of mobile apps.²⁴ This has the result of allowing the LAPL to meet increased population demand aside from the provision of new physical facilities.

Further, like the Project, each related project would also generate revenues to the City's General Fund (in the form of property taxes, sales tax, business tax, transient occupancy tax, etc.) that could be applied toward the provision of enhanced library services in the Community Plan Area, as deemed appropriate. While it cannot yet be determined whether the related projects would eventually result in a decision by LAPL to construct new library facilities, these revenues to the City's General Fund would help offset the increase in demand for library services and support the provision of services within the existing facilities.

As indicated above, total demand for the cumulative residential development would be spread across the six service libraries, limiting the cumulative demand at any one library. Furthermore, implementation of the LAPL Strategic Plan 2015-2020 is aimed at applying technological solutions to the growing demand for library services, and this may avoid or at least delay future decisions to construct new library facilities. **Therefore, cumulative impacts would be less than significant.**

Notwithstanding, the LAPL recommends a per capita fee of \$200 to be used for staff, books, computers, and other library materials, to be paid by the Project Applicant. While such a fee may be considered by the City as a potential condition of approval, there is no nexus between the payment of such staff, books, computers, and other library materials fee and any potential significant adverse physical impact associated with the provision of new or physically altered library facilities.

²⁴ Los Angeles Public Library, Building on Success: Strategic Plan, 2007–2010: notably Objectives 2-1, 5-2, 5-4, 6-2 and 6-3, http://www.lapl.org/sites/default/files/media/pdf/about/Strategic_Plan.pdf. Accessed January 18, 2018.

f) Mitigation Measures

Project-level and cumulative impacts on libraries would be less than significant. No mitigation measures are required.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.L.5 Parks and Recreation

1. Introduction

This section analyzes the potential impacts of the Project on parks and recreational facilities. The analysis addresses questions listed in Section XIV. Public Services – Parks; and Section XV. Recreation, in Appendix G of the State CEQA Guidelines (Appendix G). The demand for park and recreational facilities created by the Project is evaluated in light of the open space and recreational facilities to be provided as part of the Project and applicable City of Los Angeles (City) goals and regulatory requirements regarding the need for such facilities. The information and analysis in this section are based, in part, on existing service ratios, existing parks and recreational facilities, and information provided by the City of Los Angeles Department of Recreation and Parks (LADRP) in correspondence dated December 27, 2017. The information and analysis are also based on the Department of Recreation and Parks Report and Recommendations Relative to VTT-74531, dated March 16, 2017. The two letters from LADRP are included in Appendix M- 5 of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) *Quimby Act*

California Government Code Section 66477, also known as the Quimby Act, was enacted by the California legislature in 1965 to promote the availability of park and open space areas in response to California's rapid urbanization and the need to preserve open space and provide parks and recreation facilities in response to this urbanization. The Quimby Act authorizes cities and counties to enact ordinances requiring the dedication of land or payment of in-lieu fees for parks and recreational facilities by developers of residential subdivisions as a condition to parcel or tentative map approval.

Under the Quimby Act, dedications of land shall not exceed three acres of parkland per 1,000 persons residing within a subdivision, and in-lieu fee payments shall not exceed the proportionate amount necessary to provide three acres of parkland, unless the amount of existing neighborhood and community parkland exceeds that limit.

(2) Local

(a) *City of Los Angeles Public Recreation Plan*

Within the City's General Plan, the Public Recreation Plan (PRP) establishes policies and standards related to parks, recreational facilities, and open space areas in the City.¹ Adopted in 1980 by the Los Angeles City Council, the PRP focuses on the development of physical facilities by emphasizing the provision of neighborhood and community recreation sites, including community buildings, gymnasiums, swimming pools, and tennis courts. To a larger extent, the PRP focuses on facility planning in residential areas, as these areas generate the greatest demand for parks and recreational facilities. The PRP also establishes general locations for future facilities based on a proposed service radii and projected population levels.

The PRP identifies multiple park types based on size, type, intended users, and service radius size. Regional parks are ideally greater than 50 acres in size, provide specialized recreation facilities and/or attractions (wilderness areas, campgrounds, lakes, golf courses, etc.), and have a service radius encompassing the entire Los Angeles region; community parks are ideally 15 to 20 acres in size, provide park facilities servicing several neighborhoods (e.g., playfields, courts, swimming pools, etc.), and have a service radius of two miles; neighborhood parks are ideally five to 10 acres in size, are intended to serve residents of all ages in its immediate neighborhood (playfields, turfed picnic areas, etc.), are pedestrian-accessible without crossing a major arterial street or highway/freeway, and have a service radius of one mile; and school playgrounds, pocket parks and specialty parks are ideally half an acre in size, intended to service a school or immediate surroundings, and have a service radius of approximately half a mile.²

The PRP also states that the allocation of acreage for community and neighborhood parks should be based on the resident population within a park's service radius. The PRP identifies the goals of one acre each of neighborhood and community parkland per 1,000 persons in the short/intermediate term, and two acres each of neighborhood and community parkland per 1,000 persons in the long-term.³ It is important to note that the PRP does not establish requirements for individual development projects.

¹ City of Los Angeles, Public Recreation Plan, a portion of the Service Systems Element of the General Plan, 1980, https://planning.lacity.org/Code_Studies/GeneralElement/PublicRecreationPlan.pdf. Accessed May 9, 2018.

² City of Los Angeles, Public Recreation Plan, a Service Systems Element of the General Plan, 1980, https://planning.lacity.org/Code_Studies/GeneralElement/PublicRecreationPlan.pdf. Accessed May 9, 2018.

³ City of Los Angeles, Public Recreation Plan, a Service Systems Element of the General Plan, 1980, https://planning.lacity.org/Code_Studies/GeneralElement/PublicRecreationPlan.pdf. Accessed May 9, 2018.

(b) *Central City Community Plan*

The City's 2003 Central City Community Plan (Community Plan), which covers the Downtown area including the Project Site, provides guidance regarding the types, amounts and location of open space and recreation area in the Community Plan Area. Guidance is given in Chapter III, Land Use Policies and Programs, and Chapter V, Urban Design. The provisions provide general guidance and establish design principles for pedestrian features that can be supported within the design of private development projects regarding "Streets or public rights-of-way improved with planting, paving, lighting, signage, and furnishings act as pedestrian friendly, open space corridors." ⁴

Chapter III, Land Use Policies and Programs, Government and Public Facilities, Open Space and Recreation includes the following Policy:

Policy 4-4.1: Improve Downtown's pedestrian environment in recognition of its important role in the efficiency of Downtown's transportation and circulation systems and in the quality of life for its residents, workers, and visitors

Chapter V, Urban Design establishes the following two design concepts for open space within the South Park neighborhood:

South Park: Provide a major open space focus for this residential neighborhood and established network of well-landscaped streets, mini parks, and mid-block paseos in order to create a garden city environment.

Neighborhood Parks: A network of small and well-distributed public and semi-public open spaces are recommended to serve the needs of individual districts, neighborhoods, development, and institutions. These should be distributed at about 5-minute walking distances (1/4-mile) and vary in size and character according to land availability and use.

(c) *Los Angeles Municipal Code (LAMC)*

(i) *LAMC Section 12.21.G (Usable Open Space Requirements)*

LAMC Section 12.21.G requires that all residential developments containing six or more dwelling units on a lot provide, at a minimum, the following usable open space area per dwelling unit: 100 square feet for each unit having less than three habitable rooms, 125 square feet for each unit having three habitable rooms, and 175 square feet for each unit having more than three habitable rooms. Section 12.21 also identifies what areas of a project would qualify as usable open space for the purposes of meeting the project's open space requirements. Usable open space is defined as areas designated for active or passive recreation and may consist of private and common areas. Common open space areas must be readily accessible to all residents of the site. Common open space areas can incorporate recreational amenities such as swimming pools, spas, children's play areas, and sitting areas. A minimum of 25 percent of the outdoor common

⁴ City of Los Angeles, Central City Community Plan, <https://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>, pages III-10, III-11 and V-3 and V-6. Accessed May 9, 2018.

open space area must be planted with ground cover, shrubs, or trees. Indoor recreation amenities can account for up to 25 percent of the usable open space requirements. Private open space is an area which is contiguous to and immediately accessible from an individual dwelling unit, may have a dimension no less than six feet in any direction and must contain a minimum of 50 square feet. No more than 50 square feet per dwelling unit can be counted towards the total required usable private open space.

(ii) LAMC Section 17.12 - Park and Recreational Facility Requirements

Former LAMC Section 17.12, authorized under the Quimby Act and applicable to the Project, requires developers of residential subdivisions to dedicate land and/or pay in-lieu fees for parks and recreational facilities.⁵ Under the former LAMC Section 17.12 provisions that are applicable to this Project, the area of land within a residential subdivision that is required to be dedicated for park and recreational uses is determined by the maximum residential density permitted by the zone within which the site is located, with dedication requirements ranging from 0.9 percent for subdivisions with a net density of one dwelling unit per acre to 32.0 percent for subdivisions with a net density of 100 dwelling units per acre.

Land dedication and in-lieu fee payment are subject to the restrictions set forth in former LAMC Section 17.12 (i.e., land must be used for park or recreational uses and fees must be used for the acquisition or development of, and not the operation or maintenance of, park land).

Former LAMC Section 17.12.F allows private recreational areas developed within a project site for use by the project's residents to be credited against the project's land dedication and/or in lieu fee requirement. Recreational areas that qualify under this provision of Section 17.12 include, in part, indoor recreation areas, gyms, swimming pools and spas (when the spas are an integral part of a pool complex). Furthermore, in accordance with LAMC Section 17.12.F.1, the recreational areas proposed as part of a project must meet the following standards in order to be credited against the requirement for land dedication: (1) each facility is available for use by all of the residents of a project; and (2) the area and the facilities satisfy the park and recreation needs of a project so as to reduce that project's need for public recreation and park facilities.⁶

⁵ Ordinance No. 184,505 (Parks Dedication and Fee Update ordinance), which was passed by City Council on September 7, 2016 with an effective date of January 11, 2017, revised LAMC Section 17.12 and Section 12.33 regarding park fees and land dedication for parks. According to Ordinance 184,505, development projects that were vested prior to the effective date of January 11, 2017, as is the case with the proposed Project, are subject to the applicable provisions that were effective on the vesting date of the entitlement. The discussion in this analysis pertains to the LAMC provisions as they were prior to January 11, 2017 and that apply to this Project.

⁶ The Park Fee Schedule that is applicable to projects with vested rights acquired prior to January 11, 2017 are identified in Ordinance No. 184,505.

(iii) *LAMC Section 21.10.3 (Dwelling Unit Construction Tax)*

LAMC Section 21.10.3 establishes the payment of a dwelling unit construction tax of \$200 per new residential unit. The tax is to be paid to a “Park and Recreational Sites and Facilities Fund” for the acquisition and development of park and recreational sites/facilities. If park and recreation provisions (i.e. fees, improvements, or land dedication) have been provided pursuant to LAMC Section 17.12, the fair market value of those provisions is credited against the payment of this tax.

b) Existing Conditions

(1) Project Site

The 0.96-acre Project Site is located at the northwest corner of Olive Street and 11th Street, in the Downtown area and South Park community. The Project Site is currently developed with five existing commercial buildings, approximately one-story in height, and containing approximately 36,000 square feet of floor area, which includes a mix of retail, light manufacturing and vacant spaces. As such there is no residential population on the Project Site that would create demand for park and recreation services, although there is a small number off on-site workers who may visit local parks over the course of a day. There are no park facilities located within or immediately adjacent to the Project Site.

(2) Parks Serving the Project Site

The LADRP is responsible for the establishment, operation, and maintenance of parks and recreational facilities in the City. **Table IV.K.5-1, *Existing Parks and Recreational Facilities within the Project Vicinity***, identifies key park and open space facilities that are located within two miles of the Project Site, the focus of the impacts analysis, with information about their distance from the Project Site and their key characteristics/facilities. Most of the facilities are included in the LADRP letter that was provided by LADRP for the Project.⁷

In addition to the parks operated by LADRP, there are a large number of local and regional facilities in the vicinity of the Project Site that are operated by other regional agencies and private operators for public use. Other parks and open space facilities, e.g., non-LADRP facilities within two miles, have also been added to Table IV.L.5-1, as well as three key regional facilities that are just beyond the two-mile limit and are easily accessible via rail and bus transit. **Figure IV.L.5-1, *Parks and Recreational Facilities in the Project Vicinity***, identifies the location of each of the parks listed in Table IV.L.5-1.

⁷ Darryl Ford for Michael A. Shull, General Manager, Planning, Maintenance, and Construction Branch, City of Los Angeles Department of Recreation and Parks, correspondence dated December 27, 2017.

**TABLE IV.L.5-1
EXISTING PARKS AND RECREATIONAL FACILITIES IN THE PROJECT VICINITY**

Map ID#	Name and Address	Distance From the Project Site (miles)	Park Type	Size (acres)	Amenities
Parks Within Two Miles of the Project Site as Shown on the List Provided by LADRP					
1	6 th and Gladys Street Park 824 E. 6 th Street	1.01	Neighborhood	0.34	Picnic tables, half-court basketball, outdoor exercise equipment
2	Alvarado Terrace Park 1342 S. Alvarado Terrace	1.13	Neighborhood	0.91	Children's play area, gazebo, picnic tables
3	Arts District Park 501 S. Hewitt Street	1.43	Neighborhood	0.51	Children's play area, picnic area
4	Grand Hope Park 900 S. Hope Street	0.12	Neighborhood	2.31	Children's play area, grass areas, benches
5	Hope and Peace Park 843 S. Bonnie Brae Street	1.17	Neighborhood	0.57	Basketball courts, benches
6	Orthopedic Hospital Universal Access Playground 2400 S. Flower Street	1.17	Neighborhood	0.33	Children's play area
7	Patton Street Pocket Park 317-327 Patton Street	1.65	Neighborhood	0.40	Children's play area, outdoor fitness equipment, walking path, benches
8	Pico Union Park 1827 S Hoover Street	1.31	Neighborhood	0.72	Children's play area, picnic tables
9	Rockwood Community Park 1571 Rockwood Street	1.53	Neighborhood	0.43	Children's play area, benches
10	Saint James Park 20 S. Saint James Park	1.22	Neighborhood	0.90	Children's play area, sand box
11	San Julian Park 312 E. 5 th Street	0.87	Neighborhood	0.29	Benches, grassy area
12	Spring Street Park 428 S. Spring Street	0.77	Neighborhood	0.80	Walking paths, benches, grass area
13	UNIDAD PARK 1644-48 Beverly Boulevard	1.51	Neighborhood	0.32	Community garden, benches
14	Alpine Recreation Center 817 Yale Street	1.86	Community	1.94	Auditorium, basketball courts (lighted / outdoor/ indoor), children's play area, volleyball courts (lighted), pergola, small grass area, table tennis table

Map ID#	Name and Address	Distance From the Project Site (miles)	Park Type	Size (acres)	Amenities
15	Central Recreation Center 1357 E. 22 nd Street	1.46	Community	1.45	Basketball courts (lighted / indoor), children's play area, kitchen, stage, preschool room, computer lab
16	Echo Park 751 Echo Park Avenue	1.81	Community	28.41	Barbecue pits, baseball diamond (lighted), basketball courts (lighted / outdoor/ indoor), children's play area, community room, soccer field (lighted), tennis courts (lighted), stage, picnic tables, indoor gym (without weights), seasonal pool (outdoor / unheated)
17	Echo Park Deep Pool 1419 Colton Street	1.53	Community	2.07	Pool (indoor/ heated)
18	Hoover Recreation Center 1010 W. 25 th Street	1.33	Community	2.99	Auditorium, barbecue pits, basketball courts (lighted / outdoor), children's play area, kitchen, picnic tables, indoor gym (without weights)
19	Lafayette Park 2830 W. 6 th Street	1.85 miles	Community	9.72	Community Center, courts, playground (proposed arts and recreation center)
20	Lake Street Park 227 N. Lake Street	1.94	Community	1.52	Basketball courts (lighted / outdoor/ indoor), children's play area, community room, indoor gym (without weights), volleyball courts (unlighted), skate plaza, grass area
21	MacArthur Park 2230 W. 6 th Street	1.38	Community	29.87	Baseball diamond (unlighted), children's play area, picnic tables, lake
22	Miguel Contreras Learning Center Pool 322 S. Lucas Avenue	1.10	Community	0.66	Pools

Map ID#	Name and Address	Distance From the Project Site (miles)	Park Type	Size (acres)	Amenities
23	Pershing Square 525 S. Olive Street	0.58	Community	4.44	Ice skating rink (seasonal), stage, amphitheater, playgrounds, game and pet areas
24	Toberman Recreation Center 1725 Toberman Street	1.00	Community	2.74	Auditorium, barbecue pits, basketball courts (lighted / outdoor/ indoor), children's play area, community room, indoor gym (without weights), picnic tables, stage, kitchen, outdoor fitness equipment, multipurpose sports field, baseball diamond
25	Trinity Recreation Center 2415 Trinity Street	1.13	Community	2.06	Auditorium, basketball courts (lighted / outdoor), children's play area, indoor gym (without weights), kitchen, outdoor fitness equipment
26	Vista Hermosa Soccer Field 1301 W. 1 st Street	1.32	Community	1.88	Soccer fields, walking trails
Additional Parks Within Two Miles that are Not on the List Provided by LADRP					
27	City Hall Park Center 200 N. Main Street	1.30	LADRP Non-Categorized Park	1.71	Open space, benches, play area
28	LAPD Dog Park 139 W. 2 nd Street	1.13	Non-LADRP Park	0.63	Open space area for dogs
29	Grand Park 200 N. Grand Ave.	1.29	Non-LADRP Park	11.31	-Major Regional Facility – Events/Gatherings - open space, water features, movable park furniture, walking paths
30	Maguire Gardens 630 W. 5 th Street	0.68		1.64	Open space, water features, benches
31	Vista Hermosa Park 100 N. Toluca Street	1.35	SMM Conservancy Area	10.5	Urban natural park (picnic, pond city view overlooks, playground)
32	First and Broadway Park S. Broadway/W. 1 st Street	1.21	LADRP Community Park	1.96	Opening 2020

Map ID#	Name and Address	Distance From the Project Site (miles)	Park Type	Size (acres)	Amenities
33	Venice Hope Park 1521 S. Hope Street	0.52	Non-LADRP Park	0.36	Open space, playground
34	Staples Center Plaza 1111 S. Figueroa Street	0.38	Non-LADRP Plaza	3.23	Open space/plaza area serving stadium/arena, retail, restaurants.
35	Plaza at the Broad 221 S Grand Ave.	1.04	Non-LADRP Open Space	0.34	Open space, seating
36	L.A. Live Dog Park L.A. Live Way	0.64	Non LADRP Dog Park	0.50	Dog Park
37	Sixth Street Viaduct Bridge Sixth Street and Los Angeles River	1.85	LADRP Park	12.00	Opening 2020 (Fields, gardens, lawns, art plaza)
Key Regional Recreation Facilities More than Two Miles from the Project Site					
38	LA State Historic Park 1245 N. Spring Street	2.3	State Park	32	Open space, multiuse paths, cultural and historic resources
39	Elysian Park	2.5	LADRP Regional Park	600	Volleyball, basketball, and tennis courts, ball fields, playgrounds, and picnic areas.
40	Exposition Park	2.3	Operated as a regional facility by the California Natural Resources Agency	160	Includes the EXPO Center with pool and recreation facilities, the California African American Museum, Natural History Museum of Los Angeles County, California Science Center and Rose Garden.

SOURCE: Darryl Ford for Michael A. Shull, General Manager, Planning, Maintenance, and Construction Branch, City of Los Angeles Department of Recreation and Parks, correspondence dated December 27 2017; and ESA, 2018.

(3) Community-Wide Needs Assessment

In 2009, the LADRP commissioned an assessment of existing City parks and recreation facilities as a preliminary step in developing a Citywide park master plan and five-year capital improvement plan. The report provided an inventory of existing facilities, defined geographic areas of need and recommended facilities to serve specific populations, and

identified priorities for additional parks and recreation facilities.⁸ The Community-Wide Needs Assessment (Needs Assessment) was designed to gather and analyze information regarding the current and future recreational needs and establish a preliminary prioritization process to help direct subsequent physical planning and cost estimating.⁹ As such, the Needs Assessment does not include standards for individual private development projects.

The report provided a then-current assessment of conditions and future needs. The then current conditions identified included 9.23 acres per 1,000 persons, including (per 1,000 persons) 0.013 acres of mini-parks (i.e., parks less than one acre in size), 0.198 acres of neighborhood parks, 0.759 acres of community parks, and 2.26 acres of regional and large urban parks. Based on the then-existing supply of parks and recreation facilities, and the estimated population within the City as of 2009, the Community-Wide Needs Assessment recommended service levels of 9.60 acres of park lands per 1,000 persons Citywide, including (per 1,000 persons) 0.10 acre of mini-parks, 1.50 acres of neighborhood parks, 2.0 acres of community parks, and 6.0 acres of regional and large urban parks.¹⁰

3. Project Impacts

a) Thresholds of Significance

In assessing the Project's potential impacts related to parks and recreation services in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as its thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to parks and recreation if it would:

(1) Section XV. Recreation:

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.***

⁸ City of Los Angeles, Department of Recreation and Parks, 2009 Citywide Community Needs Assessment, Final Report, 2009, <https://www.laparks.org/sites/default/files/projects/2009%20Community%20Needs%20Assessment%20-%20Final.pdf>. Accessed May 9, 2018.

⁹ City of Los Angeles, Department of Recreation and Parks, 2009 Citywide Community Needs Assessment, Final Report, 2009. Page 3, <https://www.laparks.org/sites/default/files/projects/2009%20Community%20Needs%20Assessment%20-%20Final.pdf>. Accessed May 9, 2018.

¹⁰ City of Los Angeles, Department of Recreation and Parks, 2009 Citywide Community Needs Assessment Final Report, page 63, <https://www.google.com/url?q=https://www.laparks.org/planning/assessment-blog&sa=U&ved=0ahUKEwifrcv4zPrgAhVdCjQIHSGMAKYQFggEMAA&client=internal-uds-cse&cx=006827039532201861668:gawpx09ckve&usg=AOvVaw1GMK0AwYgADselZSNQo2e->. Accessed March 11, 2019

- b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.***

(2) Section XIV. Public Services – Parks:

- c) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks.***

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate a project's impacts to recreation and parks:

- The net population increase resulting from the proposed project.
- The demand for recreation and park services anticipated at the time of project build-out compared to the expected level of service available. Consider, as applicable, scheduled improvements to recreation and park services (renovation, expansion, or addition) and the project's proportional contribution to the demand.
- Whether the project includes features that would reduce the demand for recreation and park services (e.g., on-site recreation facilities, land dedication or direct financial support to the Department of Recreation and Parks).

b) Methodology

The analysis of impacts on parks and recreation identifies the potential demand for parks and recreation uses that would be generated by the Project, the extent to which Project facilities and potential fees would reduce the potential impacts, and then residual impacts that could occur to existing facilities. That residual demand is compared to the availability of existing facilities to accommodate the residual demand and a determination as to whether Project residents could increase usage of existing parks and recreation areas to the extent that physical deterioration of those area could occur or would necessitate the construction of additional parks facilities which could negatively impact the environment.

The demand is based on an estimate of the Project's resident population size, given the number of proposed residential units, and commercial development program.

The number of Project residents was estimated based on an average household size of 2.43 people per household in multi-family buildings in the City.¹¹ The Citywide multi-unit household size is a value used by the City for estimating City growth. The calculation of employees is based on generation factors that are taken from the Los Angeles Unified School District (LAUSD), 2018 Developer Fee Justification Study. The calculation of the

¹¹ Average household size for multiple unit buildings in the City is provided by the Department of City Planning Demographics Unit, based on information published in the 2016 American Community Survey.

residential and employment population from the related projects used in the cumulative impact analysis was taken from information provided in Section IV.K, *Population and Housing*, of this Draft EIR, as supported by information presented in Appendix L of this Draft EIR.

For information purposes, the analysis also converts Project's estimated residential population and its qualifying facilities to a service ratio expressed as acres of parkland per 1,000 residents. The ratio was then compared to existing service ratio service standards set forth in the City's Quimby Act provisions, the PRP, and the LAMC.

c) Project Characteristics

No specific Project Design Features are proposed with regard to parks and recreation. As described in Chapter II, *Project Description*, of this Draft EIR, and discussed in more detail in the impact analysis portion of this section, the Project would not include the provision of governmentally operated recreation facilities but would provide a public plaza for visitors in the Project vicinity and open space and recreation facilities for the use of Project residents.

d) Analysis of Project Impacts

Threshold a) *Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?* Less than Significant Impact.

Threshold b) *Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?* Less than Significant Impact.

Threshold c) *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities (i.e., parks), need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?* Less than Significant Impact.

(1) Construction

The Project does not propose to construct new off-site recreation facilities that could have would cause environmental impacts at off-site locations.

There are no park or recreational facilities immediately adjacent to the Project Site. The nearest facility is the Grand Hope Park, located approximately 1,000 feet (0.2 miles) from the Project Site, buffered by intervening development. Project construction activities would not be expected to result in substantial adverse physical impacts to any nearby parks because of the intervening development, as well as the distance between the closest park and the Project Site.

Construction workers would likely be drawn from an existing local and/or regional (i.e., Los Angeles County) construction labor force, and would not likely relocate their households in order to work on the Project. Accordingly, there would not be a corresponding demand on or use of the existing parks and recreation facilities during peak times as construction workers would be more likely to use parks and recreation facilities near their places of residence. While there would be the potential for Project construction workers to visit area parks for lunch or recreational activities, any such use would be limited and would not occur on a long-term basis as construction workers are temporary employees with high turnover who are typically associated with only a limited number of construction phases. Therefore, an increase in park usage by construction workers would not provide a long-term, substantial increase in park usage that would cause substantial physical deterioration of park facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **Impacts would be less than significant, and no mitigation is required.**

(2) Operation

The Project would include the development of up to 794 residential dwelling units, which would bring a residential population to the Project Site that would contribute to the demand for park space in the local vicinity. Assuming an average household size of 2.43 people per household, the average multi-unit household size in the City, the estimated on-site residential population would total 1,929 people. However, this is a conservative assumption as household sizes in the Downtown area are typically smaller than at other locations in the City.

The Project does not propose to construct new off-site recreation facilities that would cause environmental impacts at off-site locations. However, the Project would provide a ground-floor plaza area to serve the general public, and on-site open space and recreation facilities for the use of Project residents, in accordance with LAMC Section 12.21.G. These facilities are components of the Project and would have no impacts on the environment, other than as accounted for in this Draft EIR.

The calculation of the Project's open space requirements is provided in **Table IV.L.5-2, Project Open Space Requirements**. As indicated, the Project's 794 multi-family dwelling units would require, based on the per unit usable open space factors set forth in LAMC Section 12.21-G, the provision of 92,100 square feet of usable open space. Of the 92,100 square feet of open space required, 25 percent, i.e., 23,025 square feet can be provided in indoor areas, e.g. recreation rooms.

**TABLE IV.L.5-2
PROJECT OPEN SPACE REQUIREMENTS**

	Number of Habitable Rooms^b	Quantity (units)	Factor (square feet/unit)^a	Open Space Requirement (square feet)
Studio/1-Bedroom	<3	478	100	47,800
2-Bedroom	3	220	125	27,500
3-Bedroom	>3	96	175	16,800
Total Open Space Required				92,100

^a Factors from LAMC Section 12.21.G.

^b For purposes of evaluating open space requirements in the Downtown Housing Incentive Area, the City considers living rooms, dens, and bedrooms as habitable rooms.

SOURCE: ESA, February 2018.

The Project's open space amenities for Project residents and the public are shown in **Table IV.L.5-3, Summary of Project Recreation and Open Space Amenities**. The data in Table IV.L.5-3 are divided into two components. The first component is the space for Project residents that would be taken into account (i.e., credited) in calculating Project consistency with the requirements of LAMC Section 12.21.G. The second component, other open space amenities, is the space that would not be taken into account under LAMC Section 12.21.G. This remaining space that is not taken into account would not meet certain design characteristics or requirements. For example, a large amount of the Project's indoor recreation area, 16,221 square feet, would not be included towards the required LAMC total, as it exceeds the maximum Code allotment of 25 percent of total open space allowed as indoor open space.

**TABLE IV.L.5-3
SUMMARY OF PROJECT RECREATION AND OPEN SPACE AMENITIES**

Amenity	Size/Area (square feet)
Residential Open Space for Section 12.22.G Analysis	
Common	
Common Open Space (Exterior) for Project Residents	37,927
Common Open Space (Interior Activities) for Project Residents	23,025
Private	
Private Balcony Space for Project Residents	39,700
Total Credited Open Space	100,652

Amenity	Size/Area (square feet)
Other Open Space Amenities	
Public	
Street Level Plaza	2,728
Other	
Non-Credited Common Interior Open Space	16,221
Non-Credited Private Open Space	123,844
SOURCE: ESA 2018, based upon Applicant's Application Plans.	

As shown in Table IV.L.5-3, according to criteria in the LAMC for calculating open space, the Project would provide approximately 100,652 square feet (2.31 acres) of recreation and open space area for Project residents, which would exceed the amount required under LAMC Section 12.21.G of 92,100 square feet, by 8,552 square feet. Of 100,652 square feet, 37,927 square feet would include common exterior open space, 23,025 would be indoor open space (e.g. recreation rooms) noted above, and 39,700 square feet would be private balcony space. The Project would also provide additional open space that would not be taken into account in the calculations of open space under the LAMC criteria, including 2,728 square feet of plaza area to serve the general public, an additional 16,221 square feet of common interior open space for Project residents, and 123,844 square feet of additional private balcony space attached to the residential units.

The characteristics of this open space amenity is as follows:

Public Open Space: The Project's 2,728 square feet of publicly accessible plaza area at the corner of 11th Street and Olive Street would include streetscaping, landscaping and a public art display. As such, it would expand the pedestrian walkway, provide seating for visitors to the area, and create a visual amenity.

Common open space and recreation facilities: The common open space area would include a total of 77,173 square feet of common area. Of the total, only 60,952 square feet of the area may be utilized towards the residential open space requirements of the Los Angeles Municipal Code, inclusive of 37,927 square feet of exterior common open space and 23,025 square feet of interior open space. The common open space would be on large outdoor landscaped terraces, within mid-tower building cut-out areas, and on a roof-top terrace (including such facilities as lounge and event areas, a pool and gym/fitness center, community rooms, and a dog run).

Private facilities: The private open space would include a total of 163,544 square feet of private balcony area. Of the total, only 39,700 square feet of the area may be utilized towards the residential open space requirements of the Los Angeles Municipal Code.

(a) *Parks and Recreation Standards*

The City has established goals for the amount of parks and open space desired on a Citywide basis. These goals are not mandatory requirements, nor directly applicable to the open space requirements of individual projects, whose required open space is regulated by the provisions of the LAMC. However, the goals are noted and compared to Project's provision of open space and recreation facilities for information purposes. The standards are based on residential population.

(i) *Public Recreation Plan*

The PRP's desired long-range Citywide standard is two acres of neighborhood parkland per 1,000 persons, two acres of community parkland per 1,000 residents, and six acres of regional parkland per 1,000 residents, for a combined total of ten acres of parkland per 1,000 residents.¹² More attainable short and intermediate-range standards provided for the City as a whole are for one acre of neighborhood parkland per 1,000 persons and one acre of community parkland per 1,000 residents, for a combined total of two acres per 1,000 residents.¹³

Based on a conservative estimate derived from using the City's average, multi-unit household size of 2.43 people per household, the Project's addition of 794 residential units would generate approximately 1,929 new residents, assuming all of the Project's residents are new to this area. Under the PRP, 7.72 acres of parkland would be required Citywide to meet its long range standard (4 acres per 1,000 residents) and 3.86 acres of parkland Citywide would be required to meet its short-and intermediate-range standard (2 acres per 1,000 residents) to serve 1,929 new residents.

The Project would provide approximately 103,380 square feet (1.83 acres) of common and public open space inclusive of recreational facilities.¹⁴ This would represent approximately 0.94 acres per 1,000 people.

However, if one considers a more likely Site population of 1,358 people (based on the household size in the Community Plan Area) and takes into account the same 79,901 square feet of common open space provided, the service ratio, would be approximately 1.35 acres per 1,000 residents.

¹² City of Los Angeles Department of Recreation and Parks, 2009 Citywide Community Needs Assessment, <http://www.laparks.org/sites/default/files/projects/2009%20Community%20Needs%20Assessment%20-%20Final.pdf>. Accessed September 13, 2017.

¹³ City of Los Angeles, Public Recreation Plan, a portion of the Service Systems Element of the Los Angeles General Plan, adopted October 9, 1980, https://planning.lacity.org/Code_Studies/GeneralElement/PublicRecreationPlan.pdf. Accessed May 9, 2018.

¹⁴ For this illustrative example, the 79,901 square feet is inclusive of all the Project's common open space, whether credited for meeting the requirements of LAMC Section 12.21.G, and exclusive of the private open space that would so qualify.

As previously stated, the PRP contains Citywide standards, not requirements for the individual projects. As discussed below, required open space is established in the LAMC.

(ii) *Community-Wide Needs Assessment*

As discussed above, the City's Needs Assessment provides more recent standards for the provision of park space than those provided in the PRP, as discussed above. This document recommends Citywide service levels of 9.60 acres of park lands per 1,000 persons, including (per 1,000 persons) 0.10 acre of mini-parks, 1.50 acres of neighborhood parks, 2.0 acres of community parks, and 6.0 acres of regional and large urban parks. This contrasts with then existing conditions identified in the City's Needs Assessment of 9.23 acres per 1,000 persons, including (per 1,000 persons) 0.013 acres of mini-parks, 0.198 acres of neighborhood parks, 0.759 acres of community parks, and 2.26 acres of regional and large urban parks.¹⁵ As was noted above, proposed service levels were developed as a guide for the planning of park facilities by service providers; and do not establish requirements for individual projects.

As was discussed regarding the PRP, an analysis of the Project's service levels based on the smaller household sizes in the Downtown area, the Project's total common open space area of 79,901 square feet (inclusive of credited and non-credited common open space) would provide a service ratio of approximately 1.35 acres per 1,000 people. The provision of this open space would offset some of the demand of Project residents for passive outdoor open space and recreational space at some off-site locations.

(b) *Impacts on Parks*

(i) *Project Contributions to Open Space*

The Project would provide open space and park area and would be required to provide on-site land dedication or in-lieu land dedication fees under the provisions of the LAMC. The provision of such facilities would provide immediately accessible open space for Project residents.

As shown in Table IV.L.5-3, the Project includes 100,652 square feet of LAMC-compliant open space for Project residents, inclusive of 37,927 square feet of common exterior open space, 23,025 square feet of interior open space and 39,700 square feet of private/balcony open space area. The total amount of open space provided, 100,652 square feet, is therefore 8,552 square feet greater than the 92,100 square feet required.

The total amount of exterior open space, 37,927 square feet, includes 8,855 square feet of space that is provided in "outdoor" areas included in the building cut-outs in the upper

¹⁵ City of Los Angeles Department of Recreation and Parks, 2009 Citywide Community Needs Assessment, page 63, <https://www.google.com/url?q=https://www.laparks.org/planning/assessment-blog&sa=U&ved=0ahUKEwifrcv4zPrgAhVdCjQIHSGMAKYQFggEMAA&client=internal-uds-cse&cx=006827039532201861668:gawpx09ckve&usg=AOvVaw1GMK0AwYgADselZSNQo2e->. Accessed March 11, 2019.

tower floors. As described in Chapter II, *Project Description*, in order to include the cut-out open space areas as exterior open space, the Project is requesting a Zoning Administrator Interpretation (ZAI) pursuant to LAMC Section 12.21-A.2 as follows:

- An interpretation of the LAMC to clarify that the covered exterior open space provided within the Project's open space building cutout features are not considered Floor Area and meet the LAMC definition of "Common Open Space". If the building cutout areas are not counted as Common Open Space, there be an interpretation that these spaces qualify as "Recreation Rooms" under LAMC Section 12.21-G.2(a)(4)(i), to allow the areas to be counted towards interior Common Open Space.

LAMC Section 12.21-A.2 gives the Zoning Administrator:

"...the authority to determine other uses, in addition to those specifically listed in this article, which may be permitted, when in his or her judgment, the other uses are similar to and no more objectionable to the public welfare than those listed;" and/or "interpret zoning regulations when the meaning of the regulation is not clear, either in general or as it applies to a specific property or situation."

The intent of Section 12.21-G is to ensure that residential development includes outdoor open space as a needed amenity, in addition to indoor recreation facilities. The Project's cut-out open space areas provide a unique means for providing outdoor, open areas by incorporating the open spaces into the overall design of the building, and thereby providing an "outdoor" style amenity to the Project residents. The cut-out areas include provision for both active and passive activities, e.g., lounge areas and a pool and spa. The areas are open to outdoor light and air; they contain an outdoor ambience; and they would provide tenants a connection with the surrounding outdoor setting. Further, they would provide active recreation features similar to those found in outdoor parks. The building's cut-out open space area provides a unique open space amenity, which is a small component (less than 20 percent) of the overall common open space facilities otherwise provided on the Project's outdoor terrace areas. For these reasons the Project's consideration of the cut-out areas as exterior open space, or in the alternative allowing the spaces to qualify as an increase in the allowable amount of interior open space, would be consistent with the intent of Section 12.21.

Of the 37,927 square feet of outdoor common open space, pursuant to LAMC Section 12.21 a minimum of 25 percent (9,482 square feet of the 37,927 square feet of the outdoor common open space, or 0.26 acre within that area) must be planted with ground cover, shrubs, or trees. The Project would include approximately 11,290 square feet of landscaping, thus exceeding the requirement. The Project includes a substantial landscaping program that would comply with these requirements, inclusive of 130 new canopy trees. Remaining planting would include native shrubs and perennials mixed with native ground cover.

Based on above, the Project would meet the useable open space and landscape requirements contained in LAMC Section 12.21.G. In doing so, the Project would provide a range of facilities to accommodate a portion of the Project's demand for open space and recreation facilities.

(ii) *Park Fees and Land Dedication*

As described above, the Project is subject to LAMC Section 17.12, Park and Recreational Facility Requirements, as it was implemented prior to the adoption of Ordinance 184,505 (Parks Dedication and Fee Update ordinance), which was passed by City Council on September 7, 2016 and effective on January 11, 2017.

The applicable former LAMC Section 17.12 provisions set park and recreational facility dedication and/or in lieu fee requirements for new residential subdivisions based on the maximum residential density at which a site may or will be developed. The Project would include the development of 794 units on the 0.96-acre Project Site, resulting in a residential density of 827 units per acre. Based on this residential density and the residential density-based sliding scale of LAMC Section 17.12, 32 percent (0.35 acres) of the Project Site would be required to be dedicated to the City (or equivalent in-lieu fees paid) for parkland and recreational facilities.

The Project would not include the dedication of any portion of the Project Site to the City for parks and recreational facilities. However, former LAMC Section 17.12.F permits privately-held park and recreational facilities developed within a Project site to be credited against the Project's park dedication and/or in lieu fee requirement as long as these park and recreational facilities are available for use by all Project residents.

As described above, the Project proposes to include 100,652 square feet (2.31 acres) of credited total Project recreation and open space amenities, 60,952 square feet (1.4 acres) of which would be available for use by all Project residents. Therefore, the Project's private open space and recreation spaces could potentially offset some of the public parkland requirements of LAMC Section 17.12, provisions that are applicable to the Project.

Even so, the Project's recreation and open space facilities would be reviewed by the City to independently determine the amount of these facilities that qualify for credit. In so doing, the City takes into account reductions for open space and recreation services that might otherwise be required for Project residents at off-site locations. Further, the Project open space provisions and fees as applicable, would be further reviewed for a determination as to whether park fees would be required pursuant to LAMC Section 21.10.3 (Dwelling Unit Construction Tax). The LADRP has reviewed the Project in regards to the appropriate Quimby Fee schedule given its vested status, pursuant to the application for the vested tentative tract map that was deemed complete on January 4,

2017. The LADRP has recommended that the Project's Quimby fee pursuant to Section 17.12 will be based on the provision of the R5 Zone.¹⁶

(c) *Net Impacts on Parks and Open Space in the Project Vicinity.*

The Project would not provide new off-site recreation facilities that would have impacts on the environment. The Project would provide a 2,728 square-foot public plaza that would increase the supply of open space that is available to the public, and would not add to demand for open space. The Project would also include 77,173 square feet of common open-space (60,952 square feet of common open space credited towards meeting the criteria of LAMC Section 12.21.G, and 100,652 square feet of total open space pursuant to LAMC Section 12.21.G). All of the open space and recreation facilities are incorporated into the Project design and their provision would have no impacts on the environment other than as evaluated within this Draft EIR.

As described above, the Project would include a conservatively estimated residential population of 1,929 people based on the City household size for multi-use residential development, or 1,334 people based on a household size closer to that occurring in the Downtown area. The Project would also add approximately 49 new employees, most of these associated with Site security. This would be a minor increase compared to the 35 existing employees at the Project Site, as mentioned in Section IV.K, *Population and Housing*.

The small number of net new employees, and increase of 49 employees over existing conditions, is small and most employees would spend most of their time associated with work activities. Largely, employees would likely use parks and recreation facilities near their places of residence. There would be the potential for employees to visit area parks for lunch or recreational activities, however such use would be small and dispersed over the numerous parks in the vicinity of the Project. Nevertheless, the Project's new on-site privately maintained 2,728 square feet of public plaza could be utilized by Project employees, resident, and members of the Project.

The Project's residential population would have a large part of their demand for public facilities fulfilled on-site due to the amount and types of common open space provided on Site. As described above, they would have access to recreational amenities such as gym/spa, community rooms, pools, dog run, etc. and a large amount (approximately 0.90 acres) of landscaped open-to-the sky terrace area. These facilities would be immediately accessible to the Project residents in contrast to more distant locations and would be tailored to the preferences of the Site population.

Notwithstanding, there would be some residual demand from Project residents for the use of other off-site public facilities. There are no plans to construct new parks in the near

¹⁶ Ramon Barajas, Assistant General Manager, City of Los Angeles. Department of Recreation and Parks Report and Recommendations Relative to VTT-74531, dated March 16, 2017. included in Appendix M – 5 of this Draft EIR.

vicinity of the Project Site, which is a built out urban area with a large number of existing and private/open-to-the public parks with a large range of amenities. To the extent that Project residents would use nearby parks and recreation facilities in the South Park area, there is an on-going stream of funding from the South Park Open Space Maintenance Program to support the operations of the Grand Hope Park and Hope Street Family Center (nee Venice Hope Park and Recreation Center).¹⁷ These funds would avoid the physical deterioration of these facilities, in combination with additional City General Fund allocations for maintenance. Taken together, the Project would not cause physical deterioration of these facilities.

To the extent that Project residents might use other park facilities, such use would be spread across a large number of facilities that could serve more specialized interests that would draw limited portions of the Project residents and that are distributed ubiquitously throughout the area. As shown in Table IV.L.5-1, above, there are 38 facilities located within 2-miles of the Project Site. Among these are such major facilities as Pershing Square, Grand Park, Vista Hermosa, Toberman Recreation Center, Trinity Recreation Center and MacArthur Park. Further, three additional major regional facilities are located just beyond the two-mile radius that are easily access able via the Metro rail system (L.A. State Historic Park, Elysian Park, and Exposition Park). Given the differing preferences of Project residents, and large number of facilities, the residual demand from Project residents would be limited and occasional at any one facility and therefore would not cause deterioration of those facilities.

Further, as described above, the Project would be subject to the regulatory requirements of the LAMC that have been formulated to reduce the impacts of new development on parks and recreational facilities by requiring the dedication of parkland, payment of in-lieu fees, or provision of comparable on-site recreational facilities in compliance with the LAMC. As the Project would pay in-lieu fees, as required by the LAMC, these fees would help fund the acquisition of additional parkland which would further avoid deterioration of parks that might be visited by Project residents.

Accordingly, the Project would not cause deterioration of existing facilities or require the construction of new or physically altered governmental facilities to meet the performance objectives for parks. **Impacts would be less than significant, and no mitigation is required.**

¹⁷ The South Park Open Space Maintenance Program was initially established under the auspices of the Community Redevelopment Plan. The fees are paid by the South Park property owners who entered into participation agreements with CRA/LA the successor entity to the City's former redevelopment agency.

e) Cumulative Impacts

As listed and mapped in Chapter III, *General Description of Environmental Setting*, of this Draft EIR, the City has identified 195 related projects in the greater Project vicinity. An overview summary of the Project populations is provided in Section IV.K, *Population and Housing*. Of the 195 related projects, 153 projects have a residential component, which includes 49,688 housing units, that would create added demand for parks and recreation space. The cumulative number of housing units, inclusive of the Project, is 50,482. These are all multi-unit projects located mostly in the Downtown area, or otherwise Downtown adjacent. Based on an average multi-unit household size of 2.43 people per unit, the multi-unit average for the City as a whole, the cumulative population is estimated to be 122,671. This is a conservative estimate and the actual population may be lower as the household sizes in the Downtown area are smaller than those occurring city-wide. This population estimate may also be lower as some of the related projects may not be built, may be reduced in size, or may require the demolition of existing housing to accommodate the new development. The cumulative employment from the related projects is estimated to be 57,072 employees as provided in Section IV.K, *Population and Housing*, of this Draft EIR.

The LADRP conducts its planning for parks, makes its projections of park demand, and identifies park standards, based on the resident population (as opposed to the employee population) within a park's service areas. The LADRP does so because the source of most park visits is residential as opposed to non-residential uses. However, in the Downtown area there is considerable use of park space by employees, most notably during lunch time for sitting and browsing. This park usage occurs primarily during the week, outside of the hours where there is heaviest demand from nearby residents. As such, employee usage tends to complement residential usage that would more often occur on weekends and evening. Employee usage is served by a large number of parks, including regional serving parks, scaled for large populations and special events. Other key parks serving Downtown employees such facilities as Grand Hope Park, Pershing Square, Spring Street Park, and Maguire Gardens also serve employees.

As described above, new residential projects in the Downtown area would provide substantial on-site facilities to accommodate portions of their generated demand for park and recreation space. Similar to the Project, related residential projects would be required to meet the requirements of LAMC Section 12.21. Notwithstanding, there would be some residual demand from Project residents for the use of other off-site public facilities. This demand, as is the case with the Project, would have access to the large number of local parks and regional parks that are available to the Project residents, including the local parks and numerous regional facilities cited above. The related projects are located in a large area, extending approximately 1.5 miles from the Project Site. Use of smaller parks would be somewhat localized, with distribution of off-site recreation demand being spread across the parks, and in many cases separate from the more localized cumulative effects of the Project.

In addition to the parks cited above for the Project, there are currently two new parks under construction to meet the growing demand for park space in the Downtown area. A new Community Park of approximately 2 acres is being provided at First and Broadway, approximately 6,250 feet (1.2 miles) northeast of the Project Site, to accommodate local demand at northern end of the Downtown area. Also, a new 12-acre facility is being created in concert with the new Sixth Street Viaduct Bridge at 6th Street and the Los Angeles River approximately 9,850 feet (1.9 miles) east of the Project Site. This park will be a large regional facility with numerous open space and recreation facilities.

Also, many new developments in the Downtown area are including public plazas that provide open space and passive uses, which as an example, are particularly of service to the employees in the area, and may be used as passive open space areas. Such provisions are, depending on the nature of a development, subject to provisions and site design review under the standards of the Downtown Design Guide. For example, in the immediate Project area of South Park, the new DTLA/Aven development at 1120 Grand Avenue is providing a substantial public plaza and paseo between Grand Avenue and Margo Street.

Otherwise, there are no plans to construct new parks in the near vicinity of the Project Site, which is a built out urban area with a large number of existing and private/open-to-the public parks with a large range of amenities. To the extent that related project residents contribute cumulatively with the Project to the use of nearby parks and recreation facilities in the South Park area, there would also be support for maintenance due to the South Park Open Space Maintenance Program.

To the extent that residential related projects do not incorporate park facilities as components of their development projects they would be required to pay applicable in-lieu fees under the provisions of LAMC Section 17.12, if they involve residential subdivision approvals, or LAMC Section 12.33, which is applicable to both subdivision and non-subdivision residential projects. These fees could be used for the rehabilitation of existing recreational facilities in order to avoid deterioration of existing facilities, per the calculation determined by the City as appropriate for providing sufficient park space.”¹⁸ For all of these reasons, it is expected that demand for park space would be met through the use of on-site provision associated with new development projects, the existing facilities available to meet demand and rehabilitation of existing facilities through the payment of in-lieu fees, which would not have substantial physical effects on the environment. **For these reasons cumulative impacts would be less than significant.**

¹⁸ Los Angeles Municipal Code, Section 12.33.A, Park Fees and Land Dedication.

f) Mitigation Measures

Impacts to parks and recreation would be less than significant. Therefore, no mitigation measures are required.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.M Transportation and Traffic

1. Introduction

This section assesses the Project's potential impacts on transportation and traffic. The section analyzes construction and operational traffic impacts; including impacts on local intersections; the regional transportation system (Congestion Management Program [CMP] facilities and public transit); traffic hazards (including those associated with access), emergency access and consistency with adopted plans and policies for encouraging the use of alternative transportation modes.¹ The evaluation of intersection capacity examines the impact of the Project relative to existing and future conditions. The information and analyses in this section are based on the Transportation Study prepared by The Mobility Group and included as Appendix N-2 of this Draft EIR. The Transportation Study was prepared pursuant to a Memorandum of Understanding (MOU) dated in March of 2018 and followed the procedures in the City's adopted Transportation Impact Study (TIS) Guidelines. The Transportation Study was originally prepared in August 2018; and was later supplemented with additional analyses in June 2019. The June 2019 Transportation Study Update is included as Appendix N-3 of this Draft EIR. The Transportation Study, and its update, have been reviewed and approved by the Los Angeles Department of Transportation (LADOT), with the approval letters also included in Appendix N-1 of the Draft EIR.

After circulation of the Project Notice of Preparation (NOP) and LADOT approval of the Transportation Study, the City updated its travel demand model and transportation impact thresholds on July 30, 2019 based on vehicle miles traveled (VMT) pursuant to State California Environmental Quality Act (CEQA) Guidelines Section 15064.3. Therefore, the analysis below also includes a VMT analysis of the Project's impacts based on the recently adopted methodology. The VMT analysis is included in Appendix N-4 of this Draft EIR.

At present, the City of Los Angeles (City) accepts both local intersection impact analyses, as well as VMT analyses, as acceptable methodologies for determining transportation impacts under CEQA.

¹ Pursuant to Senate Bill (SB) 743, parking within the Project's Transit Priority Area (TPA) is not an environmental issue that requires evaluation in an EIR. Notwithstanding, the Project would provide parking spaces to meet the needs of its residential uses and commercial visitors pursuant to the requirements of the Los Angeles Municipal Code (LAMC). To the extent environmental impacts associated with the Project's parking would occur, those impacts are addressed in other sections of this Draft EIR. Refer in particular to Section IV.A, *Aesthetics*; IV.B, *Air Quality*; IV.E, *Greenhouse Gas Emission*; and IV.I, *Noise and Vibration*; among others.

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) *Complete Streets Act*

The Complete Streets Act (Assembly Bill [AB] 1358; Government Code Sections 65040.2 and 65302) was signed into law in 2008. The law requires that when updating the part of a local general plan that addresses roadways and traffic flows, cities and counties ensure those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians, and transit riders, as well as motorists.

(b) *Senate Bill No. 743*

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under CEQA for several categories of development projects, including the development of infill projects in transit priority areas, and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.

SB 743 adds Chapter 2.7: Modernization of Transportation Analysis for Transit Oriented Infill Projects to CEQA Section 21099. CEQA Section 21099(d)(1) provides that the aesthetic and parking impacts of a proposed residential, mixed-use residential, or employment center project to be located on an infill site within a transit priority area shall not be considered to be significant impacts on the environment. In addition, SB 743 will result in a change in the metrics for determining a project's impacts relative to the transportation network; it requires the development of new methodologies for use in the traffic analyses for CEQA documents in order to promote the State's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of multimodal transportation system, and providing clean, efficient access to destinations.

SB 743 will also change the focus of transportation analyses. Environmental review of transportation impacts currently focuses on the delay that vehicles experience at intersections and on roadway segments, which is often measured using level of service (LOS). Mitigation for increased delay often involves widening a roadway or the size of an intersection, which increases capacity and may, therefore, increase auto uses and emissions and discourage the use of alternative forms of transportation. SB 743, however, requires the focus of transportation analysis to shift from driver delay to the reduction of greenhouse gas emissions, the creation of multimodal networks, and the promotion of a mix of land uses, all designed to reduce total VMT.

To achieve this change, SB 743 required that the Office of Planning and Research (OPR) prepare revisions to the State CEQA Guidelines criteria for determining the significance of transportation impacts of projects within transit priority areas. On November 27, 2017, OPR submitted a comprehensive package of proposed amendments to the CEQA Guidelines to the Secretary of the Natural Resources Agency for certification and adoption. An updated version of the “Technical Advisory” was submitted in April 2018.²

In December 2018, the OPR adopted changes to the State CEQA Guidelines referred to as the “2019 CEQA Updates.” These changes added a new State CEQA Guidelines Section 15064.3, *Determining the Significance of Transportation Impacts*, and a new Appendix G Guideline question pertaining to a project’s conflict or consistency with State CEQA Guidelines Section 15064.3. State CEQA Guidelines Section 15064.3 describes specific considerations for evaluating a project’s transportation impacts, citing “vehicle miles traveled” as the generally appropriate measure for evaluating transportation impacts. According to State CEQA Guidelines Section 15064.3(b)(4), a lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled. Further, according to State CEQA Guidelines Section 15064.3(c), the new provisions may be applied immediately, but will otherwise become applicable statewide beginning on July 1, 2020.

On July 30, 2019, the City adopted a travel demand model, impact evaluation methodology, and transportation impact thresholds based on VMT. Caltrans is also pursuing VMT as a metric of Project impacts to better align with the State’s multimodal transportation and environmental actions goals, which is outlined in an interim guide³, but has no specific adopted methodology. Until July 1, 2020, both LOS and VMT methodologies are accepted by the City for purposes of CEQA analysis. The transportation analysis in this study is therefore based on currently adopted rules and policies based on level of service, as well as supplemental information regarding the VMT metric.

(2) Regional

(a) Congestion Management Program (CMP)

The 2010 Los Angeles County Congestion Management Program (CMP), the most recent program enacted by the County of Los Angeles (County), is a state-mandated program that serves as the monitoring and analytical basis for transportation funding decisions within Los Angeles County made through the Regional Transportation Improvement

² State of California, Governor’s Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA, April 2018. http://opr.ca.gov/docs/20180416-743_Technical_Advisory_4.16.18.pdf. Accessed July 5, 2018.

³ Local Development – Intergovernmental Review Program Interim Guide (Caltrans Approved September 2016).

Program (RTIP) and State Transportation Improvement Program (STIP) processes.⁴ The program is intended to address the impact of local growth on the regional transportation system. Statutory requirements of the CMP include monitoring LOS on the CMP Highway and Roadway network, measuring frequency and routing of public transit, implementing the Transportation Demand Management (TDM) and Land Use Analysis Program, and helping local jurisdictions meet their responsibilities under the CMP.⁵

The Los Angeles County Metropolitan Transportation Authority (Metro), the local CMP agency, has established a countywide approach to implementing the statutory requirements of the CMP. The CMP Guidelines⁶ contain procedures for monitoring land use development levels and transit system performance by local jurisdictions and Metro, and are used to inform the planning of infrastructure improvements to meet future needs, including the development of the CMP Capital Improvement Program (CIP).⁷

The countywide approach of the CMP Guidelines includes: designating a highway network that includes all state highways and principal arterials within the County and monitoring traffic conditions on the designated transportation network; performance measures to evaluate current and future system performance; promotion of alternative transportation methods; analysis of the impact of land use decisions on the transportation network; and mitigation to reduce impacts on the network.⁸ If LOS standards deteriorate, then local jurisdictions must prepare a deficiency plan that includes an analysis of the cause of the deficiency; a list of improvements, programs or actions along with cost estimates to improve multimodal performance and contribute to significant improvement of air quality; and an action plan.⁹

The CMP requires that a Traffic Impact Analysis (TIA) be performed for (1) all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and (2) all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. In addition, the CMP requires a transit system analysis to review potential impacts of increased ridership on the current capacity of the

⁴ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program, http://media.metro.net/projects_studies/cmp/images/CMP_Final_2010.pdf. Accessed December 12, 2017.

⁵ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program., Executive Summary, page 1.

⁶ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program, http://media.metro.net/projects_studies/cmp/images/CMP_Final_2010.pdf. Accessed December 12, 2017.

⁷ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program, page 59.

⁸ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program, pages 4 and 5.

⁹ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program, pages 5, 49-50.

transit system.¹⁰ The Guidelines for CMP Transportation Impact Analysis were last updated in 2010.¹¹

(b) *Southern California Association of Government 2016–2040
Regional Transportation Plan/Sustainable Communities
Strategy*

In April 2016, the Southern California Association of Governments (SCAG) adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS). The 2016-2040 RTP/SCS presents a long-term vision for the region's transportation system through the year 2040, and identifies mobility, accessibility, sustainability, and high quality of life as the principles most critical to the future of the region. Furthermore, it balances the region's future mobility and housing needs with economic, environmental and public health goals.

As stated in the 2016-2040 RTP/SCS, SB 375 requires SCAG and other Metropolitan Planning Organizations (MPOs) throughout the state to develop a SCS to reduce per capita greenhouse gas (GHG) emissions through integrated transportation, land use, housing and environmental planning.¹² Within the 2016-2040 RTP/SCS, the overarching strategy includes plans for High Quality Transit Areas (HQTAs), Livable Corridors, and Neighborhood Mobility Areas as key features of a thoughtfully planned, maturing region in which people benefit from increased mobility, more active lifestyles, increased economic opportunity, and an overall higher quality of life. HQTAs are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-served transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.¹³ Local jurisdictions are encouraged to focus housing and employment growth within HQTAs.¹⁴ The Project Site is located within an HQTA as designated by the 2016-2040 RTP/SCS.^{15,16} Please refer to Section IV.G, *Land Use and Planning*, for a detailed discussion of the applicable provisions of the 2016-2040 RTP/SCS that apply to

¹⁰ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program, pages 46-47.

¹¹ Los Angeles County Metropolitan Transportation Authority, Congestion Management Program, https://www.metro.net/projects/congestion_mgmt_pgm/. Accessed 8/16/18.

¹² Southern California Association of Governments, 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, adopted April 2016; p. 166.

¹³ Southern California Association of Governments, 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, adopted April 2016., p. 189.

¹⁴ Southern California Association of Governments, 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, adopted April 2016. p. 76.

¹⁵ Southern California Association of Governments, 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, adopted April 2016. Exhibit 5.1: High Quality Transit Areas in the SCAG Region for 2040 Plan, p. 77.

¹⁶ Los Angeles County Metropolitan Transportation Authority (Metro). "High Quality Transit Areas – Southwest Quadrant," http://media.metro.net/projects_studies/call_projects/images/Southwest%20Quad%20Map.pdf, accessed August 6, 2019.

the Project. As demonstrated therein, the Project would be consistent with applicable goals and principles set forth in the 2016-2040 RTP/SCS.

(3) Local

(a) *Mobility Plan 2035*

The *Mobility Plan 2035*, which was initially adopted by the City Council in August 2015 and amended in November 2015, January 2016, and September 2016, is a comprehensive update of the City's Transportation Element that incorporates "complete streets" principles.¹⁷ Government Code Sections 65302(b)(2)(A) and (B) require a circulation element (i.e., *The Mobility Plan 2035*) to provide for a balanced, multimodal transportation network that meets the needs of all users of street, roads, and highways. Per the statute, "all users" includes "bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors." This requirement was established as part of AB 1358, which is referred to as the California Complete Streets Act, as well as Caltrans Deputy Directive DD-64-R1, Complete Streets: Integrating the Transportation System.^{18,19}

The *Mobility Plan 2035* includes goals that define the City's five main priorities: (1) Safety First; (2) World-Class Infrastructure; (3) Access for All Angelenos; (4) Collaboration, Communication, and Informed Choices; and (5) Clean Environmental & Healthy Communities. The Plan serves to meet the goals in SCAG's RTP to decrease the VMT per capita by five percent every five years, to 20 percent by 2035, and to meet a 9 percent per capita greenhouse gas reduction by 2020 and a 16 percent per capita reduction by 2035.

The *Mobility Plan 2035* identifies a Transit Enhanced Network (TEN), a Neighborhood Enhanced Network (NEN) to support pedestrian activity, and an expanded Bicycle Enhanced Network (BEN). Among other provisions, the *Mobility Plan 2035* includes roadway designations pursuant to updated policies and current transportation needs in the City.

The *Mobility Plan 2035* provides the revised street standards used in the analysis of the Project's potential impacts to alternate modes of transportation (i.e., bicycles and pedestrians). The *Mobility Plan 2035* also incorporates by reference and updates provisions of City's 2010 Bicycle Plan; and serves as the basis for discussion of impacts on bicycle facilities below. The *Mobility Plan 2035* designates a network of bicycle lanes

¹⁷ City of Los Angeles General Plan, *Mobility Plan 2035*, An Element of the General Plan, page 13. <https://planning.lacity.org/documents/policy/mobilityplnmemo.pdf>. Accessed August 27, 2018.

¹⁸ California Legislative Information, Assembly Bill No. 1358, Planning: Circulation Element: Transportation, approved September 30, 2008, http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=200720080AB1358. Accessed January 2018.

¹⁹ California Department of Transportation, Deputy Directive, Number DD-64-R2: Complete Streets – Integrating the Transportation System, http://clkrep.lacity.org/online/docs/2017/17-0301_rpt_CLA_06-26-2017.pdf. Accessed August 13, 2019.

(Tier 1 Protected, Tier 2 and Tier 3) and bicycle paths. Tier 1 Protected Bicycle Lanes are bicycle facilities on arterial roadways with physical separation. Tier 2 and Tier 3 Bicycle Lanes are bicycle facilities on arterial roadways with striped separation.

(b) *Central City Community Plan*

The Project Site is located within the South Park District of the Central City Community Plan (Community Plan) Area (adopted January 8, 2003). The Community Plan includes the following transportation and circulation objectives that are applicable to the Project:²⁰

Objective 11-4: To take advantage of the district's easy access to two mass transit rail lines, the freeway system, and major boulevards that connect Downtown to the region.

Objective 11-6: To accommodate pedestrian open space and usage in Central City.

Objective 11-7: To provide sufficient parking to satisfy short-term retail/business users and visitors but still find ways to encourage long-term office commuters to use alternative modes of access.

The consistency of the Project with these objectives is addressed in Section IV.H, *Land Use and Planning*, of this Draft EIR.

(c) *Vision Zero*

Vision Zero Los Angeles is a traffic safety policy that promotes strategies to eliminate collisions that result in severe injury or death. The policy was first adopted as part of the City's *Mobility Plan 2035* and strengthened by mayoral directive in 2015. The City released the Vision Zero Action Plan in January 2017. It provides the City's blueprint to reduce traffic fatalities by 20 percent by the end of 2017 with the ultimate goal of eliminating traffic deaths by 2025. The Action Plan identifies the High-Injury Network (HIN), a network of streets based on collision data from the last five years, where strategic investments would have the biggest impact on reducing death and severe injury. The Project Site is not located in the HIN. Streets in the vicinity of the Project Site that are located on the High Injury Network are as follows:²¹

- Olympic Boulevard – west of Main Street
- 9th Street – east of Figueroa Street
- Olive Street – 12th Street to Pico Boulevard

²⁰ City of Los Angeles, Department of City Planning, Central City Community Plan, pages IV-6 to IV-7, <https://planning.lacity.org/complan/pdf/CCYCPTXT.PDF>. Accessed April 3, 2018.

²¹ City of Los Angeles, Vision Zero 2015-2025, High Injury Streets Network. <http://ladot.maps.arcgis.com/apps/MapJournal/index.html?appid=488062f00db44ef0a29bf481aa337cb3&webmap=6ad51e9cf42c4ef09817e4b3b4d2eeb0%22> accessed August 12, 2019.

- Pico Boulevard – Grand Avenue to Broadway

(d) *LADOT Transportation Impact Study Guidelines and Transportation Assessment Guidelines*

The LADOT TIS Guidelines establish procedures and standards for preparing Traffic Impact Studies for review by LADOT based on the LOS methodology, and until July 1, 2020, continue to be an acceptable method of determining project impacts.²²

However, on July 30, 2019, these guidelines were subsequently updated to the City's travel demand model and transportation impact thresholds based on vehicle miles traveled, pursuant to State CEQA Guidelines Section 15064.3, of the 2019 CEQA Updates that implement SB 743. The City established the Transportation Assessment Guidelines (TAG) that includes both CEQA thresholds (and screening criteria) and non-CEQA thresholds (and screening criteria). The CEQA thresholds provide the methodology for analyzing the Appendix G transportation thresholds, including providing the City's adopted VMT thresholds. The non-CEQA thresholds provide a method to analyze projects for purposes of entitlement review and making necessary findings to ensure the project is consistent with adopted plans and policies including the 2025 Mobility Plan. Specifically, the TAG is intended to effectuate a review process that advances the City's vision of developing a safe, accessible, well-maintained, and well-connected multimodal transportation network. The TAG have been developed to identify land use development and transportation projects that may impact the transportation system; to ensure proposed land use development projects achieve site access design requirements and on-site circulation best practices; to define whether off-site improvements are needed; and to provide step-by-step guidance for assessing impacts and preparing Transportation Assessment Studies.²³

b) Existing Conditions

The Project Site is located within an urban/compact infill location in the Downtown area of the City. The area is highly urbanized with an evolved street grid system, substantial transit facilities, bikeway facilities and pedestrian walkways that connect the entire Downtown area and link it to the regional transportation network. Each of these facility types is discussed further below.

²² City of Los Angeles, Department of Transportation, LADOT Transportation Impact Study Guidelines, December 2016. Accessed, February 20, 2019.

²³ Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines. https://ladot.lacity.org/sites/g/files/wph266/f/TA_Guidelines_%2020190731.pdf. Accessed September 12, 2019.

(1) Study Area Street System

(a) *Transportation Study Area*

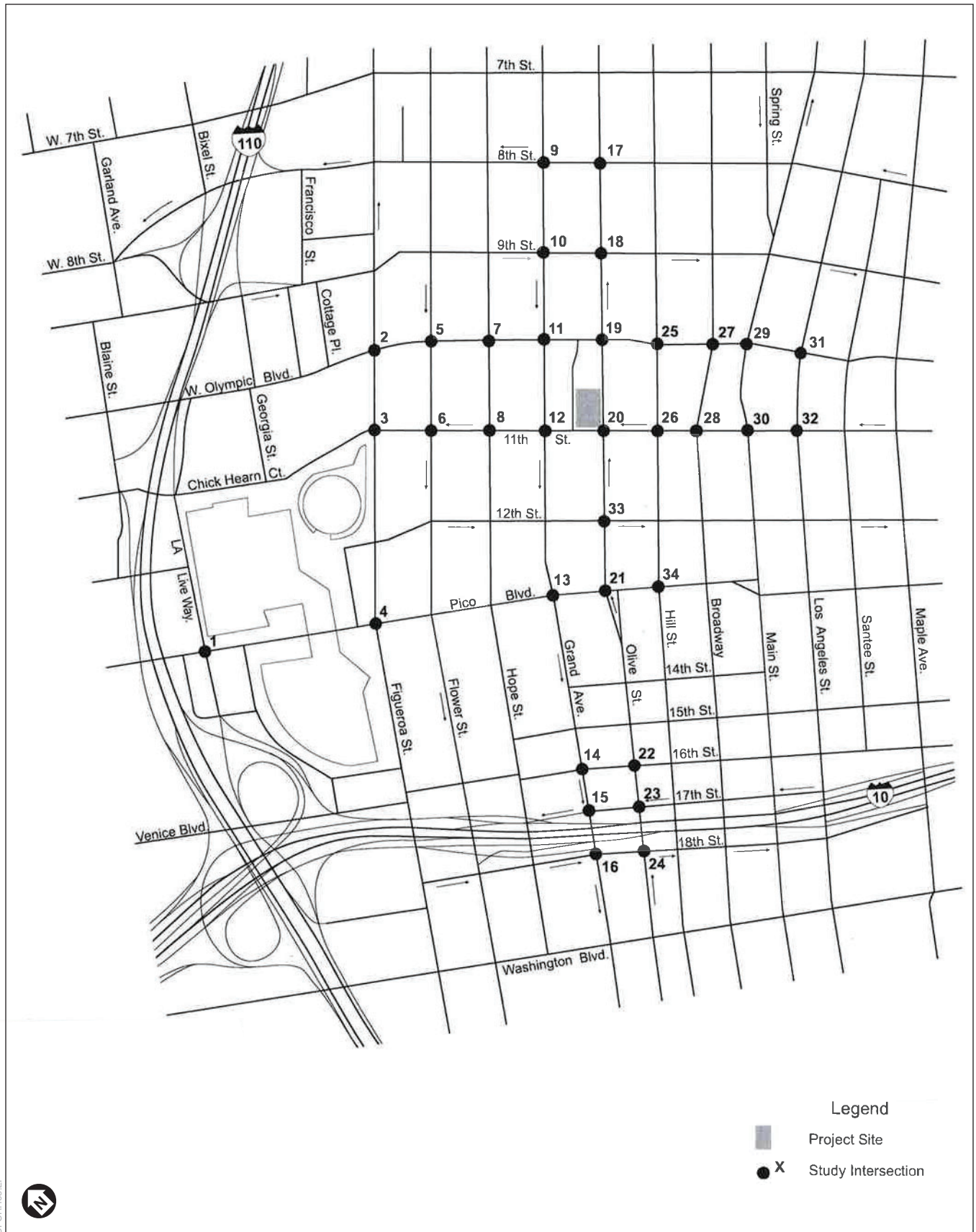
The Project's Transportation Study Area (Study Area) was determined in consultation with LADOT; and includes the geographic area bounded by 8th Street to the north, L.A. Live Way to the west, 18th Street to the south, and Los Angeles Street to the east. **Figure IV.M-1, *Street Network and Analyzed Intersections***, depicts the Project's Study Area, its street network and the intersections analyzed for potential Project impacts.

A total of 34 intersections were analyzed. These are the locations where the majority of trips associated with the Project would be focused; consisting of the intersections through which Project trips would travel before dispersing to multiple routes, and therefore, were the locations where potential traffic impacts were most likely to occur.

The Project Site is located at the northwest corner of Olive Street and 11th Street. Regional access to the Site is provided primarily by the Harbor/Pasadena Freeway (I-110/SR-110) and the Santa Monica Freeway (I-10). The Harbor/Pasadena Freeway runs north-south west of the Project Site, and the Santa Monica Freeway runs in an east-west direction south of the Project Site. These two facilities also provide access to the Hollywood (US-101) and Golden State (I-5) freeways to the north, to the San Bernardino (I-10) and Pomona (SR-60) freeways to the east, and to the Santa Ana (I-5) freeway to the south. The Project Site is served by a comprehensive grid system of downtown surface streets, with multiple access points to the freeway system.²⁴ The roadway facilities in the Study Area are under the jurisdiction of the City. All study intersections are signalized and currently operate under the City's Automated Traffic Surveillance and Control (ATSAC) system which is a centralized control system that provides for the coordination of traffic signal timing to maximize the street capacities and to minimize traffic delays on City streets.

All of these signalized intersections also operate under the City's second generation Adaptive Traffic Control System (ATCS) which utilizes enhanced surveillance and control technologies to adapt traffic signal timings to respond to actual traffic conditions on the ground to further improve the effectiveness of the ATSAC system.

²⁴ More detailed information regarding the major arterials in the Study Area and lane configurations is presented in the Transportation Study, which is provided in Appendix N of this Draft EIR.



SOURCE: The Mobility Group, August 2018

1045 Olive Project

Figure IV.M-1
Street Network and Analyzed Intersections

(b) *Roadways*

The roadway grid in the vicinity of the Project contains streets that are generally oriented in the north-south and east-west directions. Key surface streets serving the area of the Project are described below. All street classifications are from the City's *Mobility Plan 2035*.

(i) *North-South Streets*

Olive Street: Olive Street is a one-way northbound street providing three travel lanes and a buffered bike lane immediately east of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Avenue II.²⁵ On-street metered parking is provided with some restrictions.

Grand Avenue: Grand Avenue is a one-way southbound street providing three travel lanes and a buffered bike lane immediately west of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Avenue II. On-street metered parking is provided with some restrictions.

Hope Street: Hope Street is a two-way street located to the west of the Project Site. It is classified as a Modified Avenue III between 5th Street and 6th Street, and an Avenue II south of 6th Street. In the vicinity of the Project Site, Hope Street provides two-travel lanes in each direction with no left turn lanes, and on-street metered parking is provided on both sides of the street with some restrictions.

Flower Street: Flower Street is a one-way southbound street providing four travel lanes to the west of the Project Site. In the City's *Mobility Plan 2035*, it is classified as an Avenue I north of 6th Street, a Modified Avenue II between 6th Street and 11th Street, and a Modified Avenue I south of 11th Street. On-street metered parking is provided on both sides of the street with some restrictions.

Figueroa Street: Figueroa Street is a one-way northbound street located west of the Project Site. It is classified as a Boulevard II north of Wilshire Boulevard, a Modified Avenue I between Wilshire Boulevard and 7th Street, an Avenue I between 7th Street and 9th Street, a Modified Avenue I between 9th Street and Olympic Boulevard, and a Modified Boulevard II south of Olympic Boulevard. In the vicinity of the Project Site, Figueroa Street generally provides four northbound travel lanes and a peak period bus lane. A bike lane is provided north of 6th Street.²⁶ On-street metered parking is provided during off-peak hours at certain locations with some restrictions.

²⁵ The Modified Avenue II classification includes a standard of 90 feet for a right-of-way and 56 feet for the roadway width.

²⁶ The configuration at the time of the study, which was before the implementation of the MyFig Project.

L.A. Live Way: L.A. Live Way is a two-way street providing two travel lanes in each direction to the west of the Project Site. It is classified as a Collector. On-street parking is generally restricted on both sides of the street.

Hill Street: Hill Street is a two-way street generally providing two southbound travel lanes and one northbound travel lane in the vicinity of and east of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Avenue II. On-street metered parking is provided with some restrictions.

Broadway: Broadway is a two-way street providing two travel lanes in each direction to the east of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Avenue II. On-street parking is generally provided on the east side of the street with some restrictions.

Main Street: Main Street is a two-way street providing two travel lanes and a bike lane in each direction to the east of the Project Site. In the City's *Mobility Plan 2035*, it is classified as an Avenue II north of 9th Street, and a Modified Avenue I south of 9th Street. On-street parking is provided with some restrictions.

Los Angeles Street: Los Angeles Street is a north-south street providing two travel lanes in each direction to the east of the Project Site. In the City's *Mobility Plan 2035*, it is classified as an Avenue II. On-street parking is allowed on either side of the street with some restrictions.

(ii) East-West Streets

Olympic Boulevard: Olympic Boulevard is a two-way street providing two travel lanes in each direction on the block north of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Avenue I.²⁷ On-street metered parking is provided in some locations with some restrictions.

11th Street: 11th Street is a one-way westbound street immediately south of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Collector.²⁸ Until recently 11th Street provided two travel lanes, with on-street metered parking provided with some restrictions. The MyFig Project has reconfigured the street from Broadway to Figueroa Street, to include a buffered bike lane and one westbound travel lane with turn lanes at intersections. At the time of this study, 11th Street was under construction with the same travel lane configuration that will occur when the MyFig Project is completed. This lane configuration was therefore assumed in the Transportation Study.

²⁷ The Modified Avenue I classification includes a standard of 106 feet for a right-of-way and 76 feet for the roadway width.

²⁸ The Modified Collector classification includes a standard of 64 feet for a right-of-way and 40 feet for the roadway width.

12th Street: 12th Street is a one-way eastbound street providing two travel lanes to the south of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Collector. On-street metered parking is provided with some restrictions.

Pico Boulevard: Pico Boulevard is a two-way street providing two travel lanes in each direction without left turn lanes to the south of the Project Site. In the City's *Mobility Plan 2035*, it is classified as an Avenue I. On-street metered parking is provided with some restrictions.

Venice Boulevard: Venice Boulevard is a two-way street providing two travel lanes in each direction without left turn lanes to the south of the Project Site. In the City's *Mobility Plan 2035*, it is classified as an Avenue II. On-street parking is generally provided on off-peak periods with some restrictions.

17th Street: 17th Street is a one-way westbound street providing two travel lanes to the south of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Collector. On-street parking is provided with some restrictions.

18th Street: 18th Street is a one-way eastbound street providing three travel lanes to the south of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Local Street – Standard. On-street parking is generally restricted on both sides of the street.

8th Street: 8th Street is a one-way westbound street providing four travel lanes to the north of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Avenue II west of Olive Street and a Modified Avenue III east of Olive Street. On-street metered parking is provided with some restrictions.

9th Street: 9th Street is a one-way eastbound street providing three travel lanes to the north of the Project Site. In the City's *Mobility Plan 2035*, it is classified as a Modified Avenue II west of Olive Street and a Modified Avenue III east of Olive Street. On-street metered parking is provided with some restrictions.

(c) *Existing Intersection Service Levels*

A total of 34 study intersections were identified in consultation with LADOT to be analyzed in the Project traffic analysis. These intersections were evaluated to determine the existing levels of traffic in the morning and afternoon peak hours and the ability of intersections to accommodate that traffic. Manual traffic counts of vehicular turning movements were conducted from 7:00 A.M. to 10:00 A.M. and 3:00 P.M. to 6:00 P.M. to determine the respective peak commuter hours.²⁹

The service levels through the intersections were evaluated using the LOS Methodology.

²⁹ Traffic counts were conducted when local schools were in session and outside of holiday periods. The weekday morning and afternoon peak period manual counts of vehicle movements at the study intersections are provided in the Transportation Study in Appendix N of this Draft EIR.

(i) Level of Service Methodology

LOS is a qualitative measure used to describe traffic flow conditions. These conditions range from excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F. The definitions of the LOS levels and their related volume to capacity (V/C) ratios for intersections are shown in **Table IV.M-1, Level of Service Definitions for Intersections**.

(ii) Existing Peak Hour Levels of Service

Existing morning and afternoon peak hour V/C ratios and corresponding level of service for the 34 Study Area intersections are summarized in **Table IV.M-2, Existing Conditions – Intersection Levels of Service**. As shown in Table IV.M-2, all of the Study Area intersections currently operate at LOS B or better during both the morning and afternoon peak hours.

(d) CMP Monitoring Stations

As described in the Regulatory discussion above, the CMP requires that CMP facilities be evaluated for potential impacts. The CMP impact criteria analyses are applicable to both intersection and freeway monitoring locations. The 2010 CMP identifies the following five arterial monitoring stations that are located between approximately 1.5 to 3.5 miles from the Project Site:

- Wilshire Boulevard & Alvarado Street
- Wilshire Boulevard & Western Avenue
- Western Avenue & 9th Street
- Alameda Street & Washington Boulevard
- Sunset Boulevard & Alvarado Street

The 2010 CMP identifies the following eight freeway monitoring stations that are located between approximately 1.3 to 6.2 miles from the Project Site:

- I-10 at Budlong Avenue
- I-10 at East LA City Limit
- SR 60 East of Indiana Street
- SR-110 South of US-101
- SR-110 at Alpine Street
- I-110 at Slauson Avenue
- US-101 North of Vignes Street
- US-101 South of Santa Monica Boulevard

**TABLE IV.M-1
LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS**

LOS	City of LA V/C Ratio ^a	Definition
A	0.000 - 0.600	EXCELLENT. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	0.601 - 0.700	VERY GOOD. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait for more than 60 seconds, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted.
D	0.801 - 0.900	FAIR. Cars are sometimes required to wait for more than 60 seconds during short peaks. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.
E	0.901 - 1.000	POOR. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may rest Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersections approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.

^a Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington, D.C., 1985 and Interim Materials on Highway Capacity, MCHRP Circular 212, 1982.

SOURCE: The Mobility Group, August 2018.

**TABLE IV.M-2
EXISTING CONDITIONS – INTERSECTION LEVELS OF SERVICE**

No.	Intersection	Existing Conditions			
		A.M. Peak Hour		P.M. Peak Hour	
		V/C	LOS	V/C	LOS
1	La Live Way & Pico Boulevard	0.645	B	0.570	A
2	Figueroa Street & Olympic Boulevard	0.572	A	0.533	A
3	Figueroa Street & Chick Hearn Court	0.294	A	0.312	A
4	Figueroa Street & Pico Boulevard	0.504	A	0.523	A
5	Flower Street & Olympic Boulevard	0.419	A	0.566	A

No.	Intersection	Existing Conditions			
		A.M. Peak Hour		P.M. Peak Hour	
		V/C	LOS	V/C	LOS
6	Flower Street & 11 th Street	0.082	A	0.344	A
7	Hope Street & Olympic Boulevard	0.465	A	0.604	B
8	Hope Street & 11 th Street	0.119	A	0.299	A
9	Grand Avenue & 8 th Street	0.276	A	0.414	A
10	Grand Avenue & 9 th Street	0.249	A	0.451	A
11	Grand Avenue & Olympic Boulevard	0.385	A	0.553	A
12	Grand Avenue & 11 th Street	0.097	A	0.391	A
13	Grand Avenue & Pico Boulevard	0.285	A	0.561	A
14	Grand Avenue & Venice Boulevard	0.197	A	0.351	A
15	Grand Avenue & 17 th Street	0.393	A	0.681	B
16	Grand Avenue & 18 th Street	0.418	A	0.455	A
17	Olive Street & 8 th Street	0.400	A	0.294	A
18	Olive Street & 9 th Street	0.388	A	0.351	A
19	Olive Street & Olympic Boulevard	0.503	A	0.528	A
20	Olive Street & 11 th Street	0.239	A	0.340	A
21	Olive Street & Pico Boulevard	0.435	A	0.447	A
22	Olive Street & 16 th Street	0.407	A	0.353	A
23	Olive Street & 17 th Street	0.625	B	0.527	A
24	Olive Street & 18 th Street	0.459	A	0.387	A
25	Hill Street & Olympic Boulevard	0.394	A	0.535	A
26	Hill Street & 11 th Street	0.145	A	0.327	A
27	Broadway & Olympic Boulevard	0.379	A	0.521	A
28	Broadway & 11 th Street	0.179	A	0.364	A
29	Main Street & Olympic Boulevard	0.407	A	0.461	A
30	Main Street & 11 th Street	0.199	A	0.349	A
31	Los Angeles Street & Olympic Boulevard	0.325	A	0.553	A
32	Los Angeles Street & 11 th Street	0.128	A	0.374	A
33	Olive Street & 12 th Street	0.253	A	0.181	A
34	Hill Street & Pico Boulevard	0.296	A	0.457	A

SOURCE: The Mobility Group, August 2018.

(2) Public Transit

The Project Site is located in Downtown Los Angeles, which is the hub of the regional transit system in the Los Angeles area. The Project Site is four blocks, approximately 1,360 feet, from the Pico Station at Flower Street & 12th Street/Pico Boulevard, and six blocks, approximately 2,700 feet, from the 7th Street/Metro Center Station at Flower Street & 7th Street. In addition, in the future, the planned LA Streetcar that will circulate in Downtown will also run along 11th Street adjacent to the Project Site.

The Project Area (within approximately one quarter mile of the Project) is currently served by a total of seven local and inter-city transit operators.³⁰ Metro operates two rail lines (Metro Blue and Metro Expo lines at the Pico & Flower Station, the Silver Line, five Rapid bus lines, two Express lines and twenty-three local lines) in the Project Area. The Metro Center Station at Flower Street & 7th Street (which is served by the Metro Red and Purple Lines and Blue and Expo Lines) at approximately 2,700 feet is also within an approximately 10-minute walk.

Additional transit lines include nine LADOT Commuter Express lines, two LADOT DASH bus lines (DASH D and DASH F), two Orange County Transportation Authority bus lines, eight Foothill Transit bus lines, one Big Blue Bus line and one Torrance bus line operating in the Project Area.

Figure IV.M-2, *Existing Transit Service*, illustrates the existing transit service in the Study Area.

The following is a summary of existing transit service on major streets in the project vicinity:

(a) *Transit Services by Street*

(i) *Olive Street/Grand Avenue*

Located immediately east and west of the Project Site, Olive Street and Grand Avenue operate as a one-way couplet and carry one Metro Rapid Bus line (770), nine Metro Bus lines (14, 37, 70, 71, 76, 78, 79, 96, and 378), two Commuter Express lines (CE 431 and CE 437), one LADOT DASH line (DASH D), one Foothill Transit line (FT Silver Streak), one Santa Monica Transit line (BBB 10) and one Torrance Bus (T4).

(ii) *Hill Street*

Located one block east of the Project Site, Hill Street carries two Metro Rapid Bus lines (728, 794), ten Metro Bus lines (2, 4, 28, 48, 81, 83, 90, 91, 94 and 302), one Commuter Express line (CE 419), one DASH line (DASH D).

³⁰ Transportation Study, Appendix N, of the Draft EIR.

(iii) Olympic Boulevard

Located north of the Project Site, Olympic Boulevard carries one Metro Rapid line (728), one Metro Bus line (28) and one Commuter Express line (CE 534) in an east-west direction.

(iv) 8th Street/9th Street

Located two blocks north of the Project Site, 8th and 9th Streets operate as a one-way couplet and carry four Metro Local Bus lines (10, 48, 66, and 81) and one Commuter Express line (CE 419).

(v) Pico Boulevard

Located three blocks south of the Project Site, Pico Boulevard carries one Metro Local line (30/330) and one LADOT DASH line (DASH D) in an east-west direction.

(b) Bus Stops within One Block of the Project

Within one block of the Project Site, there are seven bus stops, which are located at the following locations:

- Olive Street – north of Olympic Boulevard
- Olive Street – south of Olympic Boulevard
- Olive Street – south of 11th Street
- Olive Street – north of 12th Street
- Grand Avenue – north of Olympic Boulevard
- Grand Avenue – south of Olympic Boulevard
- Grand Avenue – north of 11th Street

(3) Bicycle Network*(a) Bicycle Facilities*

As described in the Regulatory discussion above, the *Mobility Plan 2035* designates a tiered network of bicycle lanes (Protected Tier 1, Tier 2 and Tier 3) and bicycle paths in the Project vicinity: Tier 1 Bicycle Lanes are bicycle facilities on arterial roadways with physical separation. The inclusion of Protected Tier 1 Lanes; Tier 2 and Tier 3 Bicycle Lanes are bicycle facilities on arterial roadways with striped separation. Existing bicycle facilities in the Project vicinity are shown in **Figure IV.M-3, Existing Bicycle Facilities**. The currently designated bicycle facilities are as follows:

- Grand Avenue – bicycle lane
- Olive Street – bicycle lane
- Broadway, north of 11th Street – bicycle route

- Main Street – bicycle lane
- Spring Street – bicycle lane
- Figueroa Street, south of Olympic Boulevard – bicycle route
- 7th Street, west of Main Street – bicycle lane
- 11th Street, between Broadway and Maple Avenue – bicycle lane

The *Mobility Plan 2035* also includes enhancements to the existing bicycle network with added facilities and upgrades to existing facilities in some locations. These improvements are shown in **Figure IV.M-4, Future Bicycle Facilities**.

As shown in Figure IV.M-4, 11th Street adjacent to the Project Site is designated as having a Tier 1 Protected Bike Lane. This protected Bike Lane has been implemented along with improved sidewalks as a component of the MyFig capital improvement project. In addition, the planned LA Streetcar is expected to travel along this street section, connecting several locations in the Downtown area.

(b) Metro Bike Share

The Metro Bike Share program is an active public transportation option within the Downtown Los Angeles area that provides convenient round-the-clock access to a fleet of bicycles for short trips. As shown in Figure IV.M-3, above, there are sixteen existing Metro Bike Share stations within the Project vicinity. These sixteen dock stations provide a total of 182 bike-share docks.

(4) Pedestrian Network

The Project Site is located in an area with well-developed pedestrian facilities, including sidewalks on all streets and crosswalks at all intersections. There is currently a 17-foot wide sidewalk on Olive Street adjacent to the Project site, and a 10-foot wide sidewalk on 11th Street adjacent to the Project site. The sidewalks that serve as routes to the Project Site, as well as those adjacent to the Project Site, provide proper connectivity and adequate widths for a safe pedestrian environment.



SOURCE: The Mobility Group, August 2018

1045 Olive Project

Figure IV.M-3
Existing Bicycle Facilities



SOURCE: The Mobility Group, August 2018

1045 Olive Project

Figure IV.M-4
Future Bicycle Facilities

3. Project Impacts

a) Thresholds of Significance

In analyzing potential transportation and traffic impacts, the City has determined to use Appendix G of the State CEQA Guidelines as the thresholds of significance for the Project. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to transportation and traffic if it would:

- a) *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;***
- b) *Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);***
- c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or***
- d) *Result in inadequate emergency access.***

The L.A. CEQA Thresholds Guide identifies the following factors to be considered when evaluating a project's impacts on transportation and traffic:

(1) Intersection Capacity

Whether the project traffic causes an increase in the V/C ratio on the intersection operating condition after the addition of project traffic of one of the following:

- Equal to or greater than 0.04 if final LOS is C,
- Equal to or greater than 0.02 if final LOS is D, or
- Equal to or greater than 0.01 if final LOS is E or F.

(2) Street Segment Capacity

Whether the project traffic causes an increase in the V/C ratio on the street segment operating condition after the addition of project traffic of one of the following:

- Equal to or greater than 0.08 if final LOS is C,
- Equal to or greater than 0.04 if final LOS is D, or
- Equal to or greater than 0.02 if final LOS is E or F.

(3) Freeway Capacity

Whether the project traffic causes an increase in the demand-to-capacity (D/C) ratio on a freeway segment or freeway on- or off-ramp of two percent or more capacity (D/C increase ≥ 0.02), which causes or worsens LOS F conditions (D/C > 1.00).

(4) Neighborhood Intrusion

Whether the project traffic increases the average daily traffic (ADT) volume on a local residential street in an amount equal to or greater than the following:

- ADT increase equal to or greater than 16 percent if final ADT is less than 1,000.
- ADT increase equal to or greater than 12 percent if final ADT is greater than or equal to 1,000 but less than 2,000.
- ADT increase equal to or greater than 10 percent if final ADT is greater than or equal to 2,000 but less than 3,000.
- ADT increase equal to or greater than 8 percent if final ADT is greater than or equal to 3,000.

“Final ADT” is defined as total projected future daily volume including project, ambient, and related project growth.

The significance of neighborhood intrusion impacts related to vehicle delay shall be determined on a case-by-case basis.

(5) Project Access (Operational)

Whether the intersection(s) nearest the project’s primary site access is/are projected to operate at LOS E or F during the A.M. and P.M. peak hours, under cumulative plus project conditions (Future with Project Conditions).

(6) Bicycle, Pedestrian, and Vehicular Safety

The determination of significance shall be on a case-by-case basis, considering the following factors:

- The amount of pedestrian activity at project access points;
- Design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and existing the site, and the visibility of cars to pedestrians and bicyclists;
- The type of bicycle facility the project driveway(s) crosses and the level of utilization; and
- The physical conditions of the site and surrounding area, such as curves, slopes, walls, landscaping or other barriers, that could result in vehicle/pedestrian, vehicle/ bicycle or vehicle/vehicle impacts.

(7) Transit System Capacity

The determination of significance shall be made on a case-by-case basis, considering the projected number of additional transit passengers expected with implementation of the proposed project and available transit capacity.

(8) Construction Traffic

The determination of significance shall be on a case-by-case basis, considering the following factors:

- Temporary Traffic Impacts
 - The length of time of temporary street closures or closures of two or more traffic lanes;
 - The classification of the street (major arterial, state highway) affected;
 - The existing traffic levels and LOS on the affected street segments and intersections;
 - Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;
 - Potential safety issues involved with street or lane closures; and
 - The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.
- Temporary Loss of Access
 - The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;
 - The availability of alternative vehicular or pedestrian access within 0.25 mile of the lost access; and
 - The type of land uses affected, and related safety, convenience, and/or economic issues.
- Temporary Loss of Bus Stops or Rerouting of Bus Lines
 - The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;
 - The availability of a nearby location (within 0.25 mile) to which the bus stop or route can be temporarily relocated;
 - The existence of other bus stops or routes with similar routes/destinations within a 0.25-mile radius of the affected stops or routes; and
 - Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).

- Temporary Loss of On-Street Parking
 - The current utilization of existing on-street parking;
 - The availability of alternative parking locations or public transit options (e.g., bus, train) within 0.25 mile of the project site; and
 - The length of time that existing parking spaces would be unavailable.

b) Methodology

The Transportation Study was prepared pursuant to a MOU with the LADOT and is consistent with the traffic impact assessment guidelines set forth in the County CMP. The methodology and findings of the Transportation Study were approved by LADOT in Inter-Departmental Correspondence to the Department of City Planning on August 18, 2018. The Inter Departmental Correspondence precedes the Transportation Study in Appendix N of this Draft EIR. The MOU is included as Appendix A in the within the Appendix N-2, Transportation Study.

The scope of analysis in the Transportation Study was developed in consultation with LADOT. The base assumptions and technical methodologies (trip generation, study locations, analysis methodology, etc.), which are described in detail in the Transportation Study, were identified and approved by LADOT prior to the development of the Transportation Study.

A number of potential analyses were considered for the Project and deemed to not be applicable, given the Project's Downtown location and design characteristics. These analyses include the following: street segments, residential intrusion and access operations.

The intersection analysis below is the appropriate analysis for evaluating impacts on roadways in the Project vicinity. As described in the Thresholds Guide, street segment analyses are more typically used in program level analyses and are not needed beyond intersection analysis unless special circumstances exist. Neighborhood intrusion impacts are intended to specifically address conditions in residential neighborhoods, whereas the Downtown area is a mixed-use Regional Center.

Access operations analyses include threshold guidance pertaining to the service levels of intersections (LOS E or F) in the vicinity of a project's driveways. Such analyses may be considered where a project would include a driveway within 150 feet of a major or secondary intersection. The Project's Olive Street driveway is located more than 350 feet from the nearest such intersection, and would not qualify for such further consideration regarding the nearest intersection that would be operating at LOS E or F. Beyond the substantial distance from the Project's Olive Street driveway, the Project design has dispersed driveway traffic by adding two driveways on the Alley behind the Project, in addition to the Olive Street driveway.

In addition, after circulation of the Project NOP and LADOT approval of the Transportation Study, on July 30, 2019, the City updated its travel demand model and transportation impact thresholds based on VMT pursuant to State CEQA Guidelines Section 15064.3. Currently, both level of service and VMT methodologies are accepted by the City for purposes of CEQA analysis. Therefore, the analysis below also includes a VMT analysis of the Project's impacts based on recently adopted methodology; thus providing supplemental information to the Transportation Study.

Further discussion regarding the methodology employed for each of the analyses included in this Draft EIR is as follows:

(1) In-Street Construction Impacts

The analysis of construction traffic includes a determination of the number of construction-related trips (i.e., construction worker trips and construction truck trips) that would occur as a result of the Project, the contributions of those trips to the local traffic system, and an analysis of the potential conflicts between construction activity and on-going activity in the Project vicinity.³¹ The analysis focuses on the potential impact of construction traffic, including haul trucks, to lessen the capacities of access streets and haul routes due to the slower movements and the larger turning radii of the trucks. Potential conflicts, including vehicular, pedestrian, and bicyclists are evaluated.

(2) Intersection Service Levels

(a) Methodology Overview

The analysis of intersection impacts is based on the TIS Guidelines and the LOS methodology, which were applicable at the time that the NOP was issued and during preparation of the Draft EIR. Currently, an LOS analysis continues to be an accepted methodology for determining CEQA impacts by the City. Therefore, the Project's Transportation Study focuses on LOS impacts.

The methodology for intersection traffic impacts involves several steps, including the identification of existing traffic conditions, the determination of existing conditions with Project traffic, the determination of future baseline conditions without Project traffic (2023), and the determination of future baseline conditions with Project traffic (2023) at the 34 Study Area intersections.

Upon identification of potentially significant impacts, the feasibility of potential mitigation measures to reduce impacts is evaluated, and feasible mitigation measures to reduce the Project's traffic impacts are proposed. Then a final determination is made as to the

³¹ Construction assumptions, such as excavation volumes and construction timeframes and phases, were provided by the Project applicant. The excavation volumes were converted into the number of truck trips that would result based on haul truck capacity.

intersection operating conditions with the Project traffic and implementation of the mitigation measures.

Potential intersection impacts were evaluated for typical weekday morning and afternoon peak hours. In conformance with LADOT's current traffic study policies and procedures, intersection capacity was analyzed using the Critical Movement Analysis (CMA)-Planning methodology. This methodology describes the operating characteristics of an intersection in terms of the LOS, based on intersection traffic volumes and other variables such as the number and type of signal phases, lane geometries, and other factors which determine both the quantity of traffic that can move through an intersection (Capacity) and the quality of that traffic flow (LOS). The V/C ratio is a measure of the percent of the intersection's overall capacity that is utilized. (For further discussion regarding the V/C – LOS classifications, refer to Table IV.M-1, *Level of Service Definitions for Intersections*, above.)

(b) *Existing Conditions (2017)*

The analysis of existing traffic conditions provides a basis for the assessment of existing and future traffic conditions with the addition of Project traffic. The existing conditions analysis is presented in the Setting Section above. As indicated therein, the existing conditions were based on manual traffic counts of vehicular turning movements that were conducted from 7:00 A.M. to 10:00 A.M. and 3:00 P.M. to 6:00 P.M. to determine the traffic volumes for the respective commuter hours. Traffic counts were conducted when local schools were in session and outside of the holiday period.

(c) *Trip Generation*

The Project's trip generation was forecasted using trip generation factors in the *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers [ITE], 2017). The Manual's published rates for apartments, high-turnover restaurant and quality restaurant were used to estimate the number of vehicles expected to enter and exit the Project Site. Appropriate adjustments were made to the trip generation forecast based on the Project Site's existing land use. Trip generation rates and credits to account for the existing use were made in consultation with LADOT.

(d) *Trip Distribution/Trip Assignment*

The number of trips that would be generated by the Project were then distributed to the local road network. The geographic distribution of Project-generated trips depends on a number of factors. The likely distribution of Project trips was determined based on the type of Project land uses, the likely destinations of Project residents based on the local and regional distributions of employment and commercial destinations, the likely origins of commercial visitors based on the local distribution of population, existing traffic volumes, and the characteristics of the street system in the area of the Project. The general trip distribution pattern was developed in consultation with LADOT and the following distribution was assumed:

- 25 percent of the trips towards the north
- 20 percent of the trips towards the south
- 20 percent of the trips towards the east
- 35 percent of the trips towards the west

(e) *Cumulative/Future Conditions Analysis*

The future traffic scenarios (Year 2023 with and without Project) include two growth factors, ambient growth and growth through ongoing development. The ambient growth, based on a growth rate of 1.0 percent per year, accounts for general growth in traffic volumes due to minor new developments in the Project Area, and regional growth. The growth through ongoing development is localized and is based on information regarding specific development projects located in the Study Area. These developments are projects located within an approximately 1.5-mile radius from the Project Site that are currently under construction, have received formal approval, or are under formal planning consideration and potentially could be in place by the year 2023 when the Project would be completed, and that could add traffic growth to the roadways in the Study Area.³² The list of related projects located within the Study Area was provided by the Department of City Planning and LADOT, as well as other studies and reports, and field verification and field observations. A total of 195 potential development projects were identified. The related projects are described in Chapter III, *General Description of the Environmental Setting*, of the Draft EIR, Table III-1, *Related Project List*; and their location is shown in Figure III-1, *Related Projects Map*. The list of related projects was initially prepared at the time that the Project's NOP was circulated. While not required under CEQA, the City subsequently chose to amend the related projects list, pursuant to State CEQA Guidelines Section 15125 (a)(1), to include two additional new development projects and to revise the development program for a third related project. These related projects are unique in that they are large-scale projects that are located in the immediate Project vicinity and adjacent to the Project Site, and inclusion of the projects in the related projects list would serve to more accurately picture the Project's impacts, including in a cumulative context. Traffic generated by all of the related projects was used in the analysis, although the buildout years of many of the related projects are uncertain and may be beyond the buildout year of the Project, some of the related projects may never be approved or developed and no credit was applied for existing uses which may be removed.

Trip generation estimates for the related projects are based on lists provided by the City and environmental and/or traffic studies prepared for the individual projects; if information was not available from previous reports, the trip generation was estimated using standard trip rates. These estimates are considered conservative because they do not account for trip interaction between projects, and account for the possible use of non-auto modes

³² The 1.5-mile radius is a commonly used parameter, in conjunction with LADOT and the Department of City Planning to include other specific development projects that could add traffic to within the Project's Study Area. New development beyond 1.5 miles is included in ambient/regional growth factor described below.

such as transit, walk and bicycling. Therefore, the estimated traffic growth due to the ongoing development of related projects considered in the Transportation Study is conservative and may overestimate the actual traffic volume growth that would likely occur. For the purposes of preparing a conservative analysis, no potential street improvements or transportation mitigation measures that might be associated with any of the related projects were included in the future conditions traffic analysis (with the exception of the MyFig Project).

As noted above, the future (Year 2023) traffic scenarios also include an ambient growth that represents a general growth in traffic volumes due to minor new developments in the Project Area, and regional growth and development outside the Study Area. A growth rate of 1.0 percent per year was applied for this ambient traffic growth based on historical trends and in conjunction with LADOT. The existing traffic counts were therefore adjusted upward by a total of 1.0 percent a year for six years, compounded annually, to represent the ambient growth to the Project completion year. This adjustment provides a conservative estimate of future growth as the estimated growth factor in the CMP for the Central Los Angeles area, based on regional modeling, is 0.2 percent per year, which is less than the 1.0 estimate used in the analysis.³³

Potential traffic from the related projects was added to the one percent annual ambient traffic growth to produce the estimates of the Future Year 2023 Without Project traffic volumes. The Project's added increment was compared to the significance thresholds to determine whether the Project-generated traffic would result in a significant impact in the Future (Year 2023) scenario.

(3) Vehicle Miles Traveled Analysis

After circulation of the Project NOP and after approval of the Transportation Study, the City, on July 30, 2019, updated its travel demand model and transportation impact thresholds based on VMT pursuant to CEQA Guidelines Section 15064.3. In order to provide additional information reflective of the Project's impacts on VMT a supplemental analysis has been performed. This analysis meets the standards established in State CEQA Guidelines Section 15064.3 for performing VMT analysis for projects approved after July 1, 2020.

The City's newly adopted VMT analysis methodology begins with a screening analysis based on whether a development project generates a net increase of 250 or more daily vehicle trips and requires discretionary action, and whether the project would generate a new increase in daily VMT. Projects that exceed the screening threshold are then evaluated through the use of the City's VMT Calculator. In addition, projects that are located within a one-half mile of a fixed-rail or fixed-guideway transit station and result in a net reduction in residential units or include retail uses exceeding a net of 50,000 square feet are also considered to exceed the screening criteria and are required to further

³³ Exhibit D-1 of the CMP as cited in the Transportation Study, Appendix N of this Draft EIR.

evaluate the project's impacts. The VMT Calculator is a spreadsheet calculation tool that takes input information regarding a project's location and proposed development program and then calculates, as applicable, per household and/or employee vehicle miles traveled.³⁴ The VMT calculator takes into account such factors as population density, nature and location of transportation facilities, and if applicable, proposed implementation of TDM Strategies. The VMT value calculated for a project is then compared to VMT thresholds (i.e., the daily household and/or employee vehicle miles traveled) that has been established for each of the Area Planning Commission (APC) areas in the City. In the case of the Central Los Angeles APC area, in which the Project is located, the threshold value is 6.0 VMT per household and 7.6 VMT per employee, which is 15 percent below the existing VMT values in the district.

(4) Regional Transportation System - Congestion Management Program Analysis

As discussed above, under the 2010 CMP, whether a detailed CMP analysis is required for a project is determined based on a screening level analysis using the number of project trips that would result at arterial monitoring intersections or mainline freeway monitoring locations. Specifically, all CMP arterial monitoring intersections to which the Project would add 50 or more trips and all CMP freeway monitoring locations to which the Project would add 150 or more trips during either the morning or afternoon weekday peak hours are required to be examined for potential impacts. Accordingly, the CMP analysis below identifies eight freeway monitoring stations and five arterial monitoring stations in the vicinity of the Study Area and evaluates whether the Project would exceed the screening thresholds for those locations. As the Project would add fewer than the 50 trips at the arterial monitoring stations and fewer than the 150 trips at the mainline freeway monitoring stations, a detailed CMP analysis was not required for the Project.

(5) Public Transit

The analysis estimates the number of public transit trips generated by the Project in the morning and afternoon peak hours and compares those values to the level of transit services available to serve the Project. The estimated increases in transit person trips generated by the Project were based on Section B.8.4 of the CMP, which defines a methodology based on the projected number of vehicle trips. The methodology assumes an average vehicle occupancy factor of 1.4 in order to estimate the number of person trips to and from the Project and assumes that 15 percent of the trips would be public transit trips.

³⁴ City of Los Angeles VMT Calculator User Guide. https://ladot.lacity.org/sites/g/files/wph266/f/VMT_Calculator_User_Guide.20190228.pdf. Accessed September 12, 2019.

(6) Project Access; Operational and Bicycle, Pedestrian, and Vehicular Safety

The proposed vehicular Project Site access points were evaluated to ensure that conflicts would not arise and access to and from the Project Site would adequately accommodate projected Project traffic. In addition, access for pedestrians and bicyclists was evaluated. The Project's access and circulation scheme were evaluated to determine whether the Project would substantially increase the potential for conflicts between vehicles and pedestrians and cyclists. For informational purposes, an alley queuing analysis was performed to evaluate the Project's contribution to queue length and turning movements at the ends of the access Alley at 11th Street and Olympic Boulevard.

c) Project Characteristics

(1) Construction

The Project is proposing to implement the following features to reduce impacts during Project construction:

TRAF-PDF-1: Construction Management Plan: A Construction Traffic Management Plan shall be prepared for approval by the City prior to the issuance of any construction permits, to incorporate the measures identified below, as well as a Worksite Traffic Control Plan specifying the details of any sidewalk or lane closures. The Worksite Traffic Control Plan will be developed by the Applicant, and will identify all traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. The Worksite Traffic Control Plan would minimize the potential conflicts between construction activities, street traffic, bicyclists and pedestrians. The plan will be reviewed and approved by LADOT prior to commencement of construction and will include, but not limited to, the following elements as appropriate:

- Maintain access for land uses in the vicinity of the Project Site during construction.
- Schedule construction material deliveries to off-peak periods to the extent possible.
- Minimize obstruction of traffic lanes on Olive Street and 11th Street adjacent to the Project Site.
- Organize site deliveries and the staging of all equipment and materials in the most efficient manner possible, and on-site where possible, to avoid an impact to the surrounding roadways,
- Coordinate truck activity and deliveries to ensure trucks do not wait to unload or load at the site and impact roadway traffic. If needed, utilize an organized off-site staging area. Off-site staging areas shall be identified at an area that would avoid impacts to on-street parking or neighborhoods.

- Control truck and vehicle access to the Project Site with flagmen.
- Sidewalk access on Olive Street and 11th Street will be maintained during construction through the use of covered protective walkways. A Worksite Traffic Control Plan will be prepared for approval by the City, to facilitate pedestrian and traffic and movement, in order to minimize any potential conflicts.
- Coordinate with the City, emergency service providers, neighboring property management, and surrounding construction related project representatives (i.e., construction contractors) whose projects would potentially be under construction at around the same time as the Project to ensure adequate access is maintained to the Project Site and neighboring properties. Meetings shall be conducted bimonthly, or as otherwise determined appropriate by City Staff.
- Parking for construction workers will be provided off-site in off-street locations. Parking will not be allowed on streets in the vicinity of the Project.

TRAF-PDF-2: Pedestrian Safety Plan: The Applicant shall plan construction and construction staging so as to maintain pedestrian access, including Safe Routes to Schools, on adjacent sidewalks throughout all construction phases. The Applicant will maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding, etc.) from work space and vehicular traffic and overhead protection, due to sidewalk closure or blockage, at all times. Temporary pedestrian facilities will be adjacent to the Project Site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility. Covered walkways will be provided where pedestrians are exposed to potential injury from falling objects. The Applicant will keep sidewalks open during construction except when it is absolutely required to close or block the sidewalks for construction staging. Sidewalks will be reopened as soon as reasonably feasible, taking construction and construction staging into account. In the event that multiple projects are under construction in the area simultaneously that would affect the same sidewalk(s), the Applicant shall coordinate with LADOT to ensure pedestrian safety along the sidewalks is maintained in the immediate vicinity around the Project Site.

(2) Operations

The Project would also include a number of design characteristics, pursuant to the provisions of the Downtown Design Guide, that are intended to support pedestrian travel to and from the Project Site. These include improvements to sidewalks adjacent to and within the Project Site, the addition of setbacks, shade, benches, and pedestrian-scale lighting, etc., along the Olive Street and 11th Street edges of the Project Site, and pedestrian-scale retail commercial uses along street frontages.

d) Analysis of Project Impacts

Threshold a) *Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? Less than Significant Impact with the implementation of Mitigation Measures.*

(1) LOS Analysis based upon LADOT TIS Guidelines

(a) Construction

Construction of the proposed Project is to begin in 2019 and continue through 2022. Four principal phases are evaluated to determine potential traffic impacts during construction and some of the construction phases may overlap: (1) site demolition and preparation; (2) excavation and grading (including drainage, utilities and trenching); (3) foundations work; and (4) building construction (which would include paving and architectural coating).

Some of the construction phases are expected to overlap. The following analysis is based on total construction activity at the Project Site. Demolition and site preparation phases would occur for approximately four weeks with up to 28 truckloads per day, and up to 25 employees on the Project Site. The excavation and grading phase would occur for approximately four months with up to 250 truckloads per day, and up to 66 employees on site. The building foundations work would comprise the mat pour which would occur over two days with a total of 608 trucks, and 175 workers per day, and would occur on a single weekend. The building construction phase would occur for approximately 39 months, and is expected to generate up to 87 truckloads per day to the Project Site, with up to 400 workers on site.³⁵

The construction haul route from the Project Site would travel north on Olive Street, east on Olympic Boulevard, south on Hill Street, east on 18th Street and via the Los Angeles Street on-ramp to the eastbound I-10 freeway. The route to the Project Site would exit the westbound I-10 freeway at Los Angeles Street, travel west on 17th Street and north on Olive Street to the Site. This haul route may be modified in compliance with City policies, provided LADOT and/or the Department of Street Services approves any such modification.

(i) Construction Truck Traffic

The highest volume of truck trips would occur during the four months of the Project's excavation and grading phase (with the exception of the mat pour discussed separately

³⁵ The estimates for the number of construction workers and haul truck and concrete trips are based on worker data and debris, excavation, and mat concrete quantities provided by the Applicant and Contractor representative. Vendor truck trips are based on assumption built into the California Emissions Estimator Model (CalEEMod) developed for the California Air Pollution Officers Association (CAPCOA). Further detail regarding the construction program is provided in the Air Quality technical analysis worksheets, Appendix C, of this Draft EIR.

below). During this phase there would be a maximum of 250 daily truckloads expected for approximately 23 days of hauling (for the remaining days the total truckloads would be lower). Off-site staging would be used when necessary to ensure trucks do not wait or line up on streets adjacent to or near the Project Site. Available, suitable off-site locations that are safe and that do not adversely affect street parking and residential areas would be identified at the time of Project construction, and haul trucks would be radioed in as they are needed at the Project Site.

Haul traffic generally occurs prior to 3:00 P.M. per City Haul Route Guidelines, and as haul trucks try to avoid peak hour traffic and must allow time to reach their unload destinations. Therefore, assuming these trips would be spread equally over an eight-hour workday between 7:00 A.M. and 3:00 P.M., there would be up to 31 truckloads per hour. This represents a total of 62 morning peak hour truck trips (31 trips in to the site and 31 trips out from the site). The Transportation Research Board (2010 Highway Capacity Manual) identifies a passenger car equivalent (PCE) factor of 2.0 for trucks (as trucks are larger and less maneuverable than passenger cars), so 62 hourly truck trips is the equivalent of 124 passenger car trips (62 trip inbound and 62 trips outbound).

Daily truck activity would typically be completed prior to the afternoon peak hour, with truck trips contributing to the morning peak hour traffic. It is estimated that the existing uses on the Project Site currently add approximately 8 trips to the local roadway system during the morning peak hour resulting in a net PCE increase of 116 PCE trips. The peak estimate increase of 116 net PCE trips per hour would be less than 196 net morning peak hour trips that would be generated on a regular basis by Project operations upon completion. The Existing with Project analysis for the Project presented below concludes that the Project, with its greater amount of trip generation, would not cause any significant impacts in the morning or afternoon peak hours.

During other phases of construction, there would be typically fewer truck loads and trips. They would range from up to 28 truckloads per day during the Site preparation/demolition phase (4 weeks) to up to 87 truckloads per day for the thirty-nine month building construction phase. These figures would represent 14 truck trips per hour and 44 truck trips per hour respectively – much lower than the peak activity described above.³⁶ Further, as noted above, off-site locations with radio call-ins would be used to avoid queueing of trucks at the Project Site. The mat pour for the foundation would occur over a two-day period during the weekend. As the Downtown area is primarily an employment center, providing the mat pour foundation during the weekend would avoid the weekday commuter traffic and therefore be performed during the week-end's lower street traffic volumes. Truck activity at the Project Site would, like other components of the Project

³⁶ The estimates for the number of construction workers and haul truck and concrete trips are based on worker data and debris, excavation, and mat concrete quantities provided by the Applicant and Contractor representative. Vendor truck trips are based on assumption built into the California Emissions Estimator Model (CalEEMod) developed for the California Air Pollution Officers Association (CAPCOA). Further detail regarding the construction program is provided in the Air Quality technical analysis worksheets, Appendix C, of this Draft EIR.

construction, be subject to the provisions of TRAF-PDF-1, which requires implementation of a Project Construction Management Plan, which would take into account in its preparation such considerations as flagman requirements, adjacent weekend activities in the Project vicinity, necessary queue levels to support the continuous pour and other factors to facilitate the pour in an efficient manner, while minimizing impacts to the local roadway over the two-day weekend period.

(ii) *Construction Worker Traffic & Parking*

Not all workers would drive as some workers would be expected to take transit and rideshare. Construction workers would generally be on-site before 7:00 A.M. and the vast majority would leave the Project Site around 3:00 P.M., per construction schedules that seek to avoid peak traffic conditions. Therefore, worker travel would occur before the morning and evening peak commute hours. Up to 10 percent of workers are anticipated to leave after 3:00 PM.

While construction could occur during permitted hours pursuant to City regulations,³⁷ as described above, construction is primarily expected to occur between the hours of 7:00 A.M. and 3:00 P.M. on Monday through Saturday. No construction would occur on Sundays or federal holidays (with the exception of the mat pour which could occur on a Sunday).

The number of construction workers working on-site at one time would vary throughout the construction process in order to maintain an effective schedule of completion. It is estimated that during the construction period the number of workers that would be on-site would typically range from approximately 19 workers during the site preparation phase to a maximum of 400 workers, during the peak 39-month building construction phase.

Based on the 400 maximum number of workers expected on-site, and assuming 20 percent of workers would take transit or rideshare, approximately 32 worker trips could occur in the afternoon peak hour (if all the remaining workers at the Project Site left in the same hour). This conservative estimate would be only slightly greater than the number of trips generated by the existing land uses on the Project Site (16 afternoon peak hour trips), and account for only 16 percent of the afternoon peak hour trips that would be generated by the Project when it would be in operation.

(iii) *Roadway Lane and Sidewalk Closures*

It is expected that construction activities would necessitate the closure of the parking lane on the west side of Olive Street adjacent to the Project Site; however, the sidewalk and existing traffic lanes on Olive Street would remain open as called for in TRAF-PDF-1 and TRAF-PDF-2. Truck loading and unloading would occur from Olive Street within the work

³⁷ Section 41.40 of the LAMC prohibits construction between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, 6:00 p.m. and 8:00 a.m. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 a.m. to 9:00 p.m.; and Saturdays and National Holidays between 8:00 a.m. to 6:00 p.m.).

zone created. While no traffic lanes on Olive Street would be closed on a permanent basis during construction, day-to-day construction activities could sometimes result in partial lane closures on Olive Street adjacent to the Project Site on a temporary and/or intermittent basis for utility relocations/hook-ups, delivery of materials, and other construction activities, as may be required. Such activities would occur only during off-peak hours and only on certain days, and would not be a regular event. In these instances, flagmen would be used to control traffic movement during ingress and egress of trucks and heavy equipment. Any such closures would need to be coordinated with and approved by LADOT prior to being implemented. Partial lane closures would be temporary in nature, and would not require long-term complete closures of adjacent roadway lanes. The bicycle lane along 11th Street, which has been constructed as part of the MyFig Project and the traffic lane on 11th Street would remain open during construction.

The alley would remain fully open during Project construction. All construction material delivery would occur on Olive Street so none would occur in the alley. For a short period of time, some construction work may be necessary in the alley as it is widened and the widened portion of the alley is paved, and utility work is conducted. During those times, the Project would ensure that the alley would remain open with access to the Ten50 Project maintained at all times.

As the existing traffic lanes on the adjacent through streets would remain open during construction, particularly during peak hours, the Project construction would not cause significant traffic impacts.

The pedestrian sidewalks adjacent to the Project Site would remain open during construction. Pedestrian access to the sidewalks would be maintained by providing a covered protected walkway for pedestrians on both Olive Street and 11th Street, adjacent to the Project. Therefore, there would be no impacts through loss of pedestrian access to other adjacent land uses. The Construction Traffic Management Plan and Worksite Traffic Control Plan that would be prepared for the Project would identify the proposed covered sidewalks and signage for the safe routing for pedestrians. With these provisions, there would be no loss of access to other land uses in the vicinity of the Project Site.

Project construction would not close or block access to any properties in the vicinity of the Project Site. Further, there are no bus stops adjacent to the Project Site and none would be affected by the Project.

(iv) Conclusion Regarding Construction Impacts

As described above, the Project's construction trips would be less than the amounts used by the City for measuring traffic impact significance; potential land and sidewalk closures would be limited and accommodated safely; and parking, access and transit services would be impacted minimally. **Therefore, Project construction related traffic would**

not conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Project construction traffic impacts would be less than significant. No mitigation measures are required.

(b) *Operation*

(i) *Project Trip Generation*

The number of trips that the Project would generate are shown in **Table IV.M-3, Project Trip Generation**. The trips generated are shown for daily weekday totals, as well as morning and afternoon peak hours. Existing traffic generated by current uses (manufacturing and retail) was subtracted from the Project's trip generation to provide a net increase in traffic values. As shown in Table IV.M-3, the Project is anticipated to generate a total of 2,227 net new daily trips on a typical weekday, including 196 net new morning peak hour trips (39 inbound, 157 outbound) and 200 net new afternoon peak hour trips (138 inbound, 62 outbound).

**TABLE IV.M-3
PROJECT TRIP GENERATION**

Land Use Assumptions ¹	Quantity/ Units	A.M. PEAK HOUR			P.M. PEAK HOUR			DAILY
		In	Out	Total	In	Out	Total	
Existing Uses								
Manufacturing ^{2,3,4}	14,653 SF	-7	-2	-9	-3	-7	-10	-58
(Reduction for transit trips) - 15%		1	0	1	0	2	2	9
(Reduction for walk/bike trips) - 5%		0	0	0	0	0	0	2
Net Manufacturing		-6	-2	-8	-3	-5	-8	-47
Retail ^{2,3,5}	5,171 SF	0	0	0	-9	-11	-20	-195
(Reduction for transit trips) - 15%		0	0	0	1	2	3	29
(Reduction for walk/bike trips) - 5%		0	0	0	0	1	1	8
(Reduction for pass-by trips) - 50%		0	0	0	4	4	8	79
Net Retail		0	0	0	-4	-4	-8	-79
Total Existing		-6	-2	-8	-7	-9	-16	-126
Proposed Uses								
Apartment ^{2,6}	794 DU	24	143	167	103	48	151	1,644
(Reduction for transit trips) - 0%		0	0	0	0	0	0	0

Land Use Assumptions ¹	Quantity/ Units	A.M. PEAK HOUR			P.M. PEAK HOUR			DAILY
		In	Out	Total	In	Out	Total	
(Reduction for walk/bike trips) - 0%		0	0	0	0	0	0	0
<i>Net Apartments</i>		24	143	167	103	48	151	1,644
High-Turnover Restaurant ^{2,7}	6,252 SF	34	28	62	38	23	61	701
(Reduction for internal trips) - 15%		-5	-4	-9	-6	-3	-9	-105
(Reduction for transit trips) - 15%		-4	-4	-8	-5	-3	-8	-89
(Reduction for walk/bike trips) - 5%		-1	-1	-2	-1	-1	-2	-25
(Reduction for pass-by trips) - 20%		-5	-4	-9	-5	-3	-8	-96
<i>Net High-Turnover Restaurant</i>		19	15	34	21	13	34	386
Quality Restaurant ^{2,8}	6,252 SF	3	2	5	33	16	49	524
(Reduction for internal trips) - 15%		-1	0	-1	-5	-2	-7	-79
(Reduction for transit trips) - 15%		0	-1	-1	-4	-2	-6	-67
(Reduction for walk/bike trips) - 5%		0	0	0	-1	-1	-2	-19
(Reduction for pass-by trips) - 10%		0	0	0	-2	-1	-3	-36
<i>Net Quality Restaurant</i>		2	1	3	21	10	31	323
Total Trips		45	159	204	145	71	216	2,353
Total Net Trips		39	157	196	138	62	200	2,227

NOTES

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from 1045 Olive, LLC and site observations on 9/5/2017
4. Manufacturing analyzed as ITE 140 - Manufacturing. Used trip rates for General Urban/Suburban.
5. Retail analyzed as ITE 820 - Shopping Center. Used trip rates for General Urban/Suburban. Existing Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the A.M. peak hour.
6. Apartments analyzed as ITE 222 - Multifamily Housing (High Rise). Used trip rates for Dense Multi-Use Urban.
7. High-Turnover Restaurant analyzed as ITE 932 - High-Turnover (Sit-Down) Restaurant. Used trip rates for General Urban/Suburban.
8. Quality Restaurant analyzed as ITE 931 - Quality Restaurant. Used trip rates for General Urban/Suburban. Directional Distribution for AM peak from High-Turnover Restaurant, as none published for Quality Restaurant.

SOURCE: The Mobility Group, August 2018.

(ii) *Study Area Intersections*

(a) Impacts under Existing With Project Conditions

The Existing with Project traffic volumes were analyzed to determine the projected V/C ratios and LOS for each of the analyzed intersections under existing conditions and with the addition of the Project trips generated. As shown in **Table IV.M-4, Existing With Project Intersection Levels of Service**, the Project would not worsen the LOS at any intersections as compared to Existing Conditions. As further shown in Table IV.M-4, none of the study intersections would be significantly impacted by Project traffic during the morning or afternoon peak hours under Existing With Project Conditions. Thus, the Project would result in a less than significant impact under this scenario, and no mitigation measures are required.

TABLE IV.M-4
EXISTING WITH PROJECT INTERSECTION LEVELS OF SERVICE

No.	Intersection	Peak Hour	Existing Conditions		Existing With Project Conditions		Change in V/C	Significant Impact
			V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	A.M.	0.645	B	0.647	B	0.002	No
		P.M.	0.570	A	0.571	A	0.001	No
2	Figueroa Street & Olympic Boulevard	A.M.	0.572	A	0.574	A	0.002	No
		P.M.	0.533	A	0.535	A	0.002	No
3	Figueroa Street & Chick Hearn Court	A.M.	0.294	A	0.299	A	0.005	No
		P.M.	0.312	A	0.316	A	0.004	No
4	Figueroa Street & Pico Boulevard	A.M.	0.504	A	0.505	A	0.001	No
		P.M.	0.523	A	0.529	A	0.006	No
5	Flower Street & Olympic Boulevard	A.M.	0.419	A	0.421	A	0.002	No
		P.M.	0.566	A	0.569	A	0.003	No
6	Flower Street & 11 th Street	A.M.	0.082	A	0.091	A	0.009	No
		P.M.	0.344	A	0.349	A	0.005	No
7	Hope Street & Olympic Boulevard	A.M.	0.465	A	0.473	A	0.008	No
		P.M.	0.604	B	0.609	B	0.005	No
8	Hope Street & 11 th Street	A.M.	0.119	A	0.140	A	0.021	No
		P.M.	0.299	A	0.305	A	0.006	No
9	Grand Avenue & 8 th Street	A.M.	0.276	A	0.278	A	0.002	No
		P.M.	0.414	A	0.417	A	0.003	No
10		A.M.	0.249	A	0.249	A	0.000	No

No.	Intersection	Peak Hour	Existing Conditions		Existing With Project Conditions		Change in V/C	Significant Impact
			V/C	LOS	V/C	LOS		
	Grand Avenue & 9 th Street	P.M.	0.451	A	0.455	A	0.004	No
11	Grand Avenue & Olympic Boulevard	A.M.	0.385	A	0.388	A	0.003	No
		P.M.	0.553	A	0.563	A	0.010	No
12	Grand Avenue & 11 th Street	A.M.	0.097	A	0.124	A	0.027	No
		P.M.	0.391	A	0.401	A	0.010	No
13	Grand Avenue & Pico Boulevard	A.M.	0.285	A	0.301	A	0.016	No
		P.M.	0.561	A	0.566	A	0.005	No
14	Grand Avenue & Venice Boulevard	A.M.	0.197	A	0.207	A	0.010	No
		P.M.	0.351	A	0.355	A	0.004	No
15	Grand Avenue & 17 th Street	A.M.	0.393	A	0.402	A	0.009	No
		P.M.	0.681	B	0.685	B	0.004	No
16	Grand Avenue & 18 th Street	A.M.	0.418	A	0.426	A	0.008	No
		P.M.	0.455	A	0.460	A	0.005	No
17	Olive Street & 8 th Street	A.M.	0.400	A	0.405	A	0.005	No
		P.M.	0.294	A	0.296	A	0.002	No
18	Olive Street & 9 th Street	A.M.	0.388	A	0.395	A	0.007	No
		P.M.	0.351	A	0.355	A	0.004	No
19	Olive Street & Olympic Boulevard	A.M.	0.503	A	0.521	A	0.018	No
		P.M.	0.528	A	0.539	A	0.011	No
20	Olive Street & 11 th Street	A.M.	0.239	A	0.243	A	0.004	No
		P.M.	0.340	A	0.358	A	0.018	No
21	Olive Street & Pico Boulevard	A.M.	0.435	A	0.441	A	0.006	No
		P.M.	0.447	A	0.468	A	0.021	No
22	Olive Street & 16 th Street	A.M.	0.407	A	0.410	A	0.003	No
		P.M.	0.353	A	0.362	A	0.009	No
23	Olive Street & 17 th Street	A.M.	0.625	B	0.629	B	0.004	No
		P.M.	0.527	A	0.538	A	0.011	No
24	Olive Street & 18 th Street	A.M.	0.459	A	0.464	A	0.005	No
		P.M.	0.387	A	0.395	A	0.008	No
25	Hill Street & Olympic Boulevard	A.M.	0.394	A	0.400	A	0.006	No
		P.M.	0.535	A	0.540	A	0.005	No

No.	Intersection	Peak Hour	Existing Conditions		Existing With Project Conditions		Change in V/C	Significant Impact
			V/C	LOS	V/C	LOS		
26	Hill Street & 11 th Street	A.M.	0.145	A	0.148	A	0.003	No
		P.M.	0.327	A	0.338	A	0.011	No
27	Broadway & Olympic Boulevard	A.M.	0.379	A	0.380	A	0.001	No
		P.M.	0.521	A	0.529	A	0.008	No
28	Broadway & 11 th Street	A.M.	0.179	A	0.181	A	0.002	No
		P.M.	0.364	A	0.373	A	0.009	No
29	Main Street & Olympic Boulevard	A.M.	0.407	A	0.407	A	0.000	No
		P.M.	0.461	A	0.468	A	0.007	No
30	Main Street & 11 th Street	A.M.	0.199	A	0.200	A	0.001	No
		P.M.	0.349	A	0.352	A	0.003	No
31	Los Angeles Street & Olympic Boulevard	A.M.	0.325	A	0.327	A	0.002	No
		P.M.	0.553	A	0.555	A	0.002	No
32	Los Angeles Street & 11 th Street	A.M.	0.128	A	0.129	A	0.001	No
		P.M.	0.374	A	0.377	A	0.003	No
33	Olive Street & 12 th Street	A.M.	0.253	A	0.258	A	0.005	No
		P.M.	0.181	A	0.195	A	0.014	No
34	Hill Street & Pico Boulevard	A.M.	0.296	A	0.296	A	0.000	No
		P.M.	0.457	A	0.457	A	0.000	No

SOURCE: The Mobility Group, August 2018.

(b) Impacts under Future With Project Conditions

An analysis was also performed to determine the projected V/C ratios and LOS for each of the analyzed intersections under Future (year 2023) baseline conditions and with the addition of the Project trips generated. The results of the analysis for morning and afternoon peak hour periods are shown in **Table IV.M-5, Future (Year 2023) With Project Intersection Levels of Service**. The analysis of the intersections during the morning peak hour shows that the Future Without Project Conditions and the Future With Project Conditions would be similar under both scenarios, with three intersections operating at LOS E; one intersection operating at LOS F; and thirty intersections operating at LOS D or better.

TABLE IV.M-5
FUTURE (YEAR 2023) WITH PROJECT INTERSECTION LEVELS OF SERVICE

No.	Intersection	Peak Hour	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
			V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	A.M.	0.911	E	0.913	E	0.002	No
		P.M.	0.853	D	0.854	D	0.001	No
2	Figueroa Street & Olympic Boulevard	A.M.	1.164	F	1.169	F	0.005	No
		P.M.	1.325	F	1.328	F	0.003	No
3	Figueroa Street & Chick Hearn Court	A.M.	0.832	D	0.846	D	0.014	No
		P.M.	1.002	F	1.006	F	0.004	No
4	Figueroa Street & Pico Boulevard	A.M.	0.895	D	0.898	D	0.003	No
		P.M.	1.091	F	1.095	F	0.004	No
5	Flower Street & Olympic Boulevard	A.M.	0.783	C	0.789	C	0.006	No
		P.M.	1.130	F	1.133	F	0.003	No
6	Flower Street & 11 th Street	A.M.	0.333	A	0.351	A	0.018	No
		P.M.	0.758	C	0.759	C	0.001	No
7	Hope Street & Olympic Boulevard	A.M.	0.795	C	0.803	D	0.008	No
		P.M.	1.029	F	1.033	F	0.004	No
8	Hope Street & 11 th Street	A.M.	0.363	A	0.384	A	0.021	No
		P.M.	0.710	C	0.716	C	0.006	No
9	Grand Avenue & 8 th Street	A.M.	0.581	A	0.584	A	0.003	No
		P.M.	0.809	D	0.813	D	0.004	No
10	Grand Avenue & 9 th Street	A.M.	0.518	A	0.519	A	0.001	No
		P.M.	0.911	E	0.915	E	0.004	No
11	Grand Avenue & Olympic Boulevard	A.M.	0.661	B	0.665	B	0.004	No
		P.M.	1.019	F	1.028	F	0.009	No
12	Grand Avenue & 11 th Street	A.M.	0.442	A	0.471	A	0.029	No
		P.M.	0.910	E	0.920	E	0.010	Yes
13	Grand Avenue & Pico Boulevard	A.M.	0.783	C	0.799	C	0.016	No
		P.M.	1.308	F	1.314	F	0.006	No
14	Grand Avenue & Venice Boulevard	A.M.	0.457	A	0.467	A	0.010	No
		P.M.	0.605	B	0.608	B	0.003	No

No.	Intersection	Peak Hour	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
			V/C	LOS	V/C	LOS		
15	Grand Avenue & 17 th Street	A.M.	0.831	D	0.840	D	0.009	No
		P.M.	1.149	F	1.153	F	0.004	No
16	Grand Avenue & 18 th Street	A.M.	0.680	B	0.689	B	0.009	No
		P.M.	0.824	D	0.828	D	0.004	No
17	Olive Street & 8 th Street	A.M.	0.862	D	0.867	D	0.005	No
		P.M.	0.715	C	0.717	C	0.002	No
18	Olive Street & 9 th Street	A.M.	0.732	C	0.739	C	0.007	No
		P.M.	0.866	D	0.870	D	0.004	No
19	Olive Street & Olympic Boulevard	A.M.	0.971	E	0.989	E	0.018	Yes
		P.M.	1.153	F	1.163	F	0.010	Yes
20	Olive Street & 11 th Street	A.M.	0.562	A	0.567	A	0.005	No
		P.M.	0.830	D	0.848	D	0.018	No
21	Olive Street & Pico Boulevard	A.M.	0.854	D	0.862	D	0.008	No
		P.M.	1.076	F	1.098	F	0.022	Yes
22	Olive Street & 16 th Street	A.M.	0.581	A	0.584	A	0.003	No
		P.M.	0.672	B	0.681	B	0.009	No
23	Olive Street & 17 th Street	A.M.	0.937	E	0.940	E	0.003	No
		P.M.	1.017	F	1.028	F	0.011	Yes
24	Olive Street & 18 th Street	A.M.	0.691	B	0.696	B	0.005	No
		P.M.	0.761	C	0.768	C	0.007	No
25	Hill Street & Olympic Boulevard	A.M.	0.762	C	0.767	C	0.005	No
		P.M.	1.052	F	1.058	F	0.006	No
26	Hill Street & 11 th Street	A.M.	0.337	A	0.340	A	0.003	No
		P.M.	0.680	B	0.692	B	0.012	No
27	Broadway & Olympic Boulevard	A.M.	0.735	C	0.739	C	0.004	No
		P.M.	1.090	F	1.097	F	0.007	No
28	Broadway & 11 th Street	A.M.	0.383	A	0.385	A	0.002	No
		P.M.	0.751	C	0.760	C	0.009	No
29	Main Street & Olympic Boulevard	A.M.	0.899	D	0.900	D	0.001	No
		P.M.	1.152	F	1.158	F	0.006	No
30		A.M.	0.520	A	0.521	A	0.001	No

No.	Intersection	Peak Hour	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
			V/C	LOS	V/C	LOS		
	Main Street & 11 th Street	P.M.	0.844	D	0.847	D	0.003	No
31	Los Angeles Street & Olympic Boulevard	A.M.	0.464	A	0.465	A	0.001	No
		P.M.	0.805	D	0.807	D	0.002	No
32	Los Angeles Street & 11 th Street	A.M.	0.232	A	0.233	A	0.001	No
		P.M.	0.585	A	0.588	A	0.003	No
33	Olive Street & 12 th Street	A.M.	0.493	A	0.497	A	0.004	No
		P.M.	0.588	A	0.602	B	0.014	No
34	Hill Street & Pico Boulevard	A.M.	0.521	A	0.521	A	0.000	No
		P.M.	0.861	D	0.861	D	0.000	No

SOURCE: The Mobility Group, June 2019.

During the morning peak hour, the increases in V/C ratios would be less than the threshold for a significant impact to occur, at all of the intersections except for one location where the increase would be sufficient to cause a significant impact:

- Intersection No. 19: Olive Street & Olympic Boulevard. LOS E and the incremental change in V/C ratio is 0.010 or greater.

During the afternoon peak hour the Future Without Project Conditions and the Future With Project Conditions would be similar under both scenarios. Under the Future Without Project conditions, 18 intersections would operate at LOS D or better, two intersections would operate at LOS E, and 12 intersections would operate at LOS F. With the Project, 18 intersections would continue to operate at LOS D or better, two intersections would operate at LOS E, and 14 intersections would operate at LOS F.

During the afternoon peak hour, the increases in V/C ratios would be less than the threshold for a significant impact to occur, at all of the intersections except for four locations where the increase would be sufficient to cause a significant impact:

- Intersection No. 12: Grand Avenue & 11th Street - LOS E and the Project's incremental change in V/C ratio is 0.010 or greater.
- Intersection No. 19: Olive Street & Olympic Boulevard - LOS F and the Project's incremental change in V/C ratio is 0.010 or greater.

- Intersection No. 21: Olive Street & Pico Boulevard - LOS F and the Project's incremental change in V/C ratio is 0.010 or greater.
- Intersection No. 23: Olive Street & 17th Street - LOS F and the Project's incremental change in V/C ratio is 0.010 or greater.

Based on LADOT sliding scale threshold standards identified above, prior to mitigation, the Project would result in a significant impact during the morning and afternoon peak hours at Intersection No. 19, Olive Street and Olympic Boulevard. It would result in significant impacts at three intersections in the afternoon peak hour: Intersection No. 12, Grand Avenue and 11th Street, Intersection No. 21, Olive Street and Pico Boulevard and Intersection No. 23, Olive Street and 17th Street. Therefore, mitigation measures are required and are proposed below to reduce the intersection impacts to less than significant levels.

(2) MOU between LADOT and Caltrans – Freeway Analysis

The Project's Transportation Study, Appendix N of this Draft EIR, also includes a freeway analysis pursuant to an MOU between LADOT and Caltrans (Agreement Between the City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures (December 2015)) (Agreement). The Agreement sets forth criteria for when a freeway impact analysis should be conducted. This requires an initial evaluation of freeway mainline segments and freeway off-ramps to determine if Project volumes exceed certain thresholds that would require further analysis of the freeway system. A freeway evaluation of Project volumes against these thresholds was conducted according to the procedures in the MOU and is included in the MOU in Appendix A of the Appendix N Transportation Study. The initial evaluation concluded that neither the freeway mainline thresholds or the freeway off-ramp threshold were met by Project traffic volumes, so no further analysis of the freeway system was necessary.

Nevertheless, in the interests of providing a comprehensive study, a freeway analysis was conducted, and is included in Appendix D-REV of the Transportation Study for informational purposes. The analysis addresses five freeway mainline segments, four freeway off-ramps, and five freeway on-ramps, at the key locations that would be used by Project traffic. The analysis addresses Existing, Existing With Project, Future Without Project, and Future With Project conditions. Caltrans does not have published criteria for determination of significant impacts. In its Traffic Impact Study Guide, Caltrans states that it endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, and to maintain the existing LOS in cases where a facility is operating at less than the target LOS. This guideline was therefore used. For off ramps, Caltrans' primary concern is if peak hour traffic queues on an off-ramp exceed the storage length on the ramp and result in queues backing onto the mainline freeway. The off ramp analysis therefore addresses vehicle queues. For on-ramps, the analysis evaluates if the traffic volumes would exceed the capacity of an on-ramp. The analysis shows that the volume of traffic that would be added to any freeway mainline or ramp locations would be

very small. The Project would cause an increase in mainline freeway trips of 0.1 percent to 0.2 percent.

The analysis shows that the Project would not cause any changes in mainline levels of service and would not cause Caltrans freeway mainline level of service targets to be exceeded. The analysis shows that the Project would not appreciably increase queue lengths on freeway off-ramps and would not cause queue lengths on any off ramps to exceed total storage lengths. Finally, the analysis also indicates that the Project would not cause the capacities of any on-ramp to be exceeded.³⁸

(3) Congestion Management Program

(a) *CMP Arterial Monitoring Locations*

Under the CMP, impacts to the regional transportation system are those occurring on CMP arterials and freeways during peak commuting hours. As discussed previously, the CMP identifies the following five arterial monitoring intersections that are located between approximately 1.5 to 3.5 miles from the Project Site:

- Wilshire Boulevard & Alvarado Street
- Wilshire Boulevard & Western Avenue
- Western Avenue & 9th Street
- Alameda Street & Washington Boulevard
- Sunset Boulevard & Alvarado Street

Morning and afternoon peak hour traffic for the CMP monitoring intersections is based on the number of trips entering and leaving the Study Area in the direction of the outlying CMP arterial monitoring intersections, based on the conservative assumption that there would be no diverging trips, meaning that all trips traveling in a given direction as they leave the Study Area would continue in that direction until passing through the arterial monitoring intersection.

Based on the trip generation and trip distribution characteristics of the Project as described earlier, the maximum number of trips that the Project would add to any station would be 10 trips in both morning and afternoon peak hours. Many project trips would disperse onto numerous roadways away from the site before reaching these locations. Therefore, the Project would not add more than 50 trips to any CMP monitoring location.

³⁸ Transportation Study, Appendix N of this Draft EIR, page 83.

(b) CMP Freeway Segment Analysis

The CMP Traffic Impact Analysis guidelines require that freeway monitoring locations must be examined if the Project will add 150 or more trips (in either direction) during either the morning or afternoon weekday peak periods. A review of the 2010 CMP also indicated the following eight freeway monitoring stations that are located between approximately 1.3 to 6.2 miles from the Project Site:

- I-10 at Budlong Avenue
- I-10 at East LA City Limit
- SR 60 East of Indiana Street
- SR-110 South of US-101
- SR-110 at Alpine Street
- I-110 at Slauson Avenue
- US-101 North of Vignes Street
- US-101 South of Santa Monica Boulevard

The number of Project vehicle trips expected to pass through these stations was estimated based on the Project trip distribution and the Project trip generation. The maximum number of one-way Project trips that would be added to these freeway segments would be 16 morning trips and 14 afternoon peak hour trips at the SR-110 south of US-101 station. These low incremental volumes are well below the CMP threshold of 150 trips. It is therefore concluded that the Project would not exceed the threshold to that would require analysis to measure significance at CMP freeway monitoring locations. Project-generated trips would be below the screening threshold for both the arterial monitoring stations and the mainline freeway segment.

(c) CMP Public Transit Analysis

The Transportation Study provides an analysis of Project impacts on public transit services based on the CMP requirements and guidelines. The analysis estimates the Project's public transit trips based on the Project's vehicle trips and compares the value to the available transit service. As shown in Table IV.M-3 above, the Project would generate approximately 196 morning peak hour trips and 200 afternoon peak hour trips. The estimation of transit trips is shown in Table 6.5 of the Transportation Study, which is based on CMP procedures, and that shows the Project would generate approximately 53 new transit trips during the morning peak hour, 53 new transit trips in the afternoon peak hour.

As also described in the Transportation Study analysis, the two directional peak capacity of the transit system serving the Project Site is approximately 36,990 persons during the morning peak hour and 36,475 persons during the afternoon peak hour. The highest total volume of peak hour transit trips added by the Project would be 53 trips, which would

represent approximately 0.14 percent of the total transit capacity during the peak hour. Metro is currently experiencing system-wide bus and rail decline in ridership. Estimated weekday system-wide bus and rail ridership has declined from 1,504,778 in 2013 to 1,214,773 in 2018.³⁹ As such, the Project would not cause the capacity of the transit system to be substantially exceeded.

(d) Conclusion Regarding CMP Analyses

The above analyses have evaluated the Project's impacts in regards to applicable Los Angeles County CMP provisions, as regards impacts on arterial monitoring locations, freeway segments and freeway ramps. In each case the analyses resulted in impacts that were less than the applicable standards for measuring significance.

(4) Plans Regarding Transit, Bicycle and Pedestrian Facilities

The Project Site is located in Downtown Los Angeles, which is the hub of the regional transit system in the Los Angeles area. The Project Site is four blocks from train access at the Pico Station at Flower Street & 12th Street/Pico Boulevard which serves the Metro Blue Line and the Metro Expo Line, and is six blocks from train access the 7th Street/Metro Center Station at Figueroa Street & 7th Street, which serves the Metro Red/Purple, Blue and Expo Lines. The Project Area is currently served by a total of seven local and inter-city transit operators offering regional transit services as well as local LADOT DASH Lines.

The Project is also subject to the provisions of the following adopted policies, plans and programs that are intended to enhance the performance and safety of public transit, bicycle and pedestrian facilities. These include: *Mobility Plan 2035* and the *Downtown Design Guide*. By providing development that is complementary to nearby alternative transportation facilities, the Project is consistent with the applicable plans and programs and would not conflict with their implementation.

There are also a number of plans, policies and programs whose primary focus is on reducing vehicle miles traveled, which has the effect of transferring passengers from their automobiles to alternative modes of transportation, including the *2016-2040 RTP/SCS*, *Mobility Plan 2035*, *Community Plan*, *Downtown Design Guide* and *Downtown Street standards*. These are implemented through site-specific zoning and numerous regulations that shape the physical form of the City so-as to create development patterns and population distributions that are conducive to the support of public transit. Consistent with these plans, policies and regulatory measures, the Project's location and design support the provision of increased density in proximity to a large array of public transit, including rail and bus services, as well as bike lanes and a high quality pedestrian network, thereby supporting the use of alternative modes of transportation. Refer to further discussion in Section IV.H, *Land Use and Planning*, of this Draft EIR. Additional

³⁹ Los Angeles County Metropolitan Transportation Authority, Metro Ridership, <http://isotp.metro.net/MetroRidership/Index.aspx>. Accessed June 27, 2019.

Project features intended to encourage the use of alternative modes of transportation are discussed below.

The Project Site is located adjacent to the MyFig Project. The purpose of the MyFig Project is to transform the Figueroa Corridor, inclusive of an extension along W. 11th Street adjacent to the Project Site, into a complete multimodal network that serves the needs of pedestrians, bicyclists, transit riders, and drivers. Further, the proposed LA Streetcar Project that would link the several neighborhoods and districts within the Downtown area, would also run along 11th Street adjacent to the Project Site. As shown in Figure IV.M-4, *Future Bicycle Facilities* above, a number of new bicycle facilities are being implemented pursuant to *Mobility Plan 2035*, inclusive of a Tier 1 Protected Bike Lane along 11th Street adjacent to the Project Site.

Pedestrian access to the Project Site would be provided from Olive Street and 11th Street with direct access from the sidewalks to commercial uses and the residential lobby. The Project would maintain the existing 17-foot sidewalk on Olive Street and increase the existing 10-foot sidewalk on 11th Street to 15 feet (including a three-foot sidewalk easement and 2-foot dedication). The Project would provide such pedestrian amenities such as landscaping, setbacks, shade, benches and pedestrian-scale lighting along the Olive Street and 11th Street edges of the Project Site, and pedestrian-scale retail commercial uses along street frontages. A pedestrian plaza would be provided at the corner of Olive Street and 11th Street to enhance pedestrian circulation. The frontages of the Project Site would meet the specific design and landscaping requirements included in the *Downtown Design Guide* and the MyFig Project. These requirements provide massing, landscaping and architectural guidance to create continuity of public spaces and encourage the use of the local bicycle facilities and comfortable accessibility to public transit facilities. (For further discussion regarding consistency with these requirements refer to Section IV.H, *Land Use*, of this Draft EIR.)

Further, TRAF-PDF-2, Pedestrian Safety Plan, includes provisions for maintaining the integrity and safety of pedestrian accessibility and continued use of adjacent alternative transportation facilities during construction. Covered walkways would be provided where pedestrians are exposed to potential injury from falling objects; and sidewalks would remain open during construction except when it is absolutely required to close or block the sidewalks for construction staging. Sidewalks would be reopened thereafter as soon as reasonably feasible.

The vehicle access locations would be designed to City standards so as to provide adequate sight distance sidewalks, and pedestrian movement controls that would meet the City's requirements to protect pedestrian safety and to ensure no hazardous conditions are created. Further, vehicular access would be provided from the Alley behind the Project, reducing curb cuts and interference with pedestrian movements. All roadways and driveways intersect at right angles, and street trees would meet City standards to enhance pedestrian visibility and reduce potential vehicle and pedestrian conflicts. During Project construction, TRAF-PDF-1, Construction Management Plan, would control on-site

construction activity, site accessibility during construction and potential interference with pedestrian and traffic movements adjacent to the Project Site.

Bicycle access to the Project would be facilitated by the existing bicycle lanes on Olive Street and 11th Street. On-site bicycle parking would be provided in accordance with LAMC requirements, with some short-term bicycle parking located along the adjacent sidewalks. The Project would retain the existing dedicated bicycle lane adjacent to the Project Site along Olive Street and would not conflict with future bicycle lane improvements along 11th Street as part of the MyFig Project. The Project would be designed to City standards so as to provide adequate sight distance at new access points to meet the City's requirements and enhance bicycle safety.

The Project would also support the use of public transit by maintaining the pedestrian accessibility to buses and rail services as described above. Further, although not required to mitigate impacts regarding alternative transit plans, policies and programs, mitigation measure TRAF-MM-1: TDM Program, which is recommended to reduce significant traffic impacts to levels of service at nearby intersections, would implement a TDM program requiring additional Project Site support for the use of alternative modes of transportation with the following: on-site bicycle facilities; the provision of information regarding the availability of, and encouraging the use of, public transit; and the payment of funds to support off-site improvements regarding bicycle services and first/last mile transit accessibility.

In summary, the Project is compatible with and supportive of the use of alternative modes of transportation. Therefore, the Project would not conflict with any adopted program plans, ordinance or policy addressing transit, bicycle or pedestrian facilities.

(5) Conclusions Regarding Program Plans, Ordinances and Policies

The above analyses show that the Project would be consistent with and would not conflict with the CMP and the multiple plans regarding transit, bicycle and pedestrian facilities. The analysis of the Project's impacts on street intersections, based on the LADOT TIS Guidelines, concluded that the Project would not have a significant impact on roadway intersections during the Existing with Project conditions. However, prior to mitigation, the Project would result in significant impacts during the morning and afternoon peak hours at Intersection No. 19, Olive Street and Olympic Boulevard. It would also result in significant impacts at three intersections in the afternoon peak hour: Intersection No. 12, Grand Avenue and 11th Street; Intersection No. 21, Olive Street and Pico Boulevard; and Intersection No. 23, Olive Street and 17th Street.

Therefore, the Project's impacts regarding an applicable program, plan, ordinance or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, would be considered significant prior to mitigation. Mitigation measures are required and are proposed below to reduce the intersection impacts to less than significant levels.

Threshold b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064, subdivision (b)? Less than Significant.

As described in the Subsection 2.a, *Regulatory Framework*, above, according to State CEQA Guidelines Section 15064.3(c), the new provisions of subdivision (b) may be applied immediately, but will otherwise become applicable statewide beginning on July 1, 2020. On July 30, 2019, the City updated its travel demand model, impact evaluation methodology, and transportation impact thresholds based on VMT. The transportation analysis in this study is therefore primarily based on the adopted rules and policies based on level of service, which were in place at the time of the circulation of the NOP and at the time that the Transportation Study was completed and approved by LADOT. The above analysis of project consistency with programs, plans, ordinances or policies includes an LOS analysis pursuant to the currently applicable TIS Guidelines, and is based on the LOS methodology. However, subsequent to the approval of the Transportation Study, a supplemental VMT analysis was completed to provide additional information regarding the project's transportation impacts.

The Project would generate more than 250 daily trips and would result in a net increase in VMT, thus exceeding the screening threshold established under the new LADOT TAG, and requiring a VMT analysis using the City's VMT Calculator. Upon entering the Project information into the Calculator, the results of the analysis show that with the Project, the Household VMT per Capita would be 4.2 compared to the threshold of 6.0, and would have a less than significant impact without mitigation. It is also noted that the threshold for Household VMT per Capita at 6.0 is set at 15 percent below the average value of 7.1 for the Central Area Planning Commission district. Therefore, the Project's Household VMT per Capita of 4.2 is 30 percent below the threshold and 41 percent below the average for the Central Area Planning district.⁴⁰

In addition, according to Section 2.2.2 of the TAG, the Work VMT per Capita would be less than significant, as any portion of, or entirety of a project that contains small-scale or local-serving retail land uses that total less than 50,000 square feet in floor area can be excluded or "screened out" from VMT analysis and is assumed to have less than significant VMT impact. Therefore, the Project, which includes 12,504 square feet of commercial uses, would have a less than significant VMT impact without mitigation.

⁴⁰ The Mobility Group, 1045 Olive Project – VMT Analysis, September 12, 2019. Included as Appendix N- 4 of this Draft EIR.

Threshold c) *Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*
Less than Significant Impact.

The Project is an urban infill development within an existing street grid. The Project would provide residential and retail/restaurant uses consistent with similar uses in the Project vicinity and would not introduce incompatible uses that would require special equipment or vehicles operating on the local street network. Further, the Project would not alter the existing street grid.

Hence, there would be no geometric design features, such as sharp curves or new intersections, that would be created as part of the Project that could increase hazards on existing roadways.

Access to the Project Site would be provided in a manner that is safe and that would not create hazardous conditions. Site access would be provided by one driveway on Olive Street and two driveways in the Alley that connects 11th Street and Olympic Boulevard between Olive Street and Grand Avenue. The Olive Street driveway would have two lanes to accommodate inbound and outbound residential and commercial traffic. It would be designed to LADOT standards with adequate visibility.

Access would be provided from the two alley driveways, which is consistent with the provisions of the Downtown Design Guide (Section 5.A.11 and Figure 5-3) that encourage entries from alleys to promote street wall continuity and reduce conflicts with pedestrians. Each driveway would consist of two lanes (one ingress and one egress). The Olive Street driveway and the northern alley driveway would connect across the Project Site to provide access to the subterranean parking levels.

The alley provides access to Olympic Boulevard and to 11th Street. At Olympic Boulevard, all turn movements are possible at the alley as Olympic Boulevard is a two-way street. At 11th Street only right in and right out turns are possible at the alley as 11th Street is one way westbound. The Project would widen the alley to a 10-foot half width to meet the City's 20-foot total alley width standard. An on-site loading dock would be provided on the alley, to enable deliveries and move-ins/moves-outs to occur without stationary vehicles in the alley. The alley driveways would be perpendicular to the alley, with adequate visibility, and designed to LADOT standards to ensure there will be no hazardous conditions created. For informational purposes, the Transportation Study has evaluated the potential queuing effects of the Project on the alley and concluded that the increase in queue lengths due to the Project at Olympic Boulevard and at 11th Street in both the morning and afternoon peak hours would be minimal (one to two cars).

The location and design of these driveways are intended to minimize impacts to traffic flow, provide for pedestrian safety, to accommodate sufficient capacity to prevent queuing in the City's right-of-way, and to account for locations of driveways and vehicular access of adjoining uses. The Project's proposed uses would be consistent and compatible with

the current urban uses surrounding the Project Site. **Therefore, the Project would not increase hazards due to a Project design feature or incompatible uses. No mitigation is required.**

Threshold d) Would the Project result in inadequate emergency access?
Less than Significant Impact.

(6) Construction

Construction activities would be primarily contained within the Project Site's boundaries. However, construction fences may encroach into the public right-of-way (e.g., sidewalk, bicycle lanes and roadways) adjacent to the Project Site during off-site or streetscape improvements. The Project would implement a Construction Management Plan inclusive of a Worksite Traffic Control Plan that would ensure that traffic flow and access would be maintained throughout the course of construction activities. The Construction Management Plan must be approved by the City; and would require the use of temporary traffic controls to direct traffic around any street closures and designate construction haul routes to ensure that adequate emergency access is maintained during construction. Provisions would be provided for the use of flagmen and staging of Site access activities to avoid congestion. **Therefore, Project construction would not result in inadequate emergency access and impacts would be less than significant. No mitigation is required.**

(7) Operation

Project operation would generate traffic in the Project vicinity and increase traffic within the area. However, emergency access to the Project Site and surrounding area would continue to be provided on adjacent streets similar to existing conditions. There are no roadways bordering the Project Site designated as an emergency or disaster route by the City. Direct vehicular access to the Project Site would be provided via three access driveways, two of which would be accessed off of the alley that connects Olive Street and 11th Street. Project access would be designed to LADOT standards and reviewed by City staff. In addition, the Project is required to meet LAMC code requirements for adequate emergency access and comply with Los Angeles Fire Department (LAFD) access requirements. With review and approval of Project Site access and circulation plans by the LAFD, as well as the Los Angeles Police Department (LAPD) the Project would not impair implementation or physically interfere with adopted emergency response or emergency evacuation plans. **Therefore, Project operation would not result in inadequate emergency access and impacts would be less than significant. No mitigation is required.**

e) Cumulative Impacts

The analyses of the Project's cumulative impacts are based on the related projects that are described in Chapter III, *General Description of the Environmental Setting*, of the Draft EIR (Table III-1, *Related Project List*; Figure III-1, *Related Projects Map*); and a 1.0 percent growth factor to account for other ambient growth occurring in the region. The related projects list includes recently completed, under construction and potential future projects within the Project vicinity.

(1) Construction

While simultaneous construction of the cumulative development may occur within the Project area, the construction years of the related projects are uncertain and would not necessarily coincide with the construction window of the Project. There is also a possibility that some of the related projects may never be approved or developed. To the extent that construction activities associated with related projects overlap in the vicinity of the Project Site, during the same time frame as Project construction, there would be cumulative impacts affecting vehicle traffic flow, transit, and pedestrian and bicycle movements. It is not possible to quantify such impacts at this time, given the high level of uncertainty in the timing and location of potential overlapping construction activities. As discussed above, the Project would implement a Construction Management Plan, inclusive of a Worksite Traffic Control Plan (TRAF-PDF-1) and a Pedestrian Safety Plan (TRAF-PDF-2) to protect the public safety and maintain traffic flows that might be affected by the Project's construction traffic. In the Project area, each related project would be required, like the Project, to comply with City requirements regarding haul routes and safe pedestrian routes and would either implement mitigation measures and/or include project design features, such as traffic controls and safety procedures, to reduce potential traffic impacts during construction. Since all of these project-specific plans would require review and approval by LADOT, that process would provide an opportunity to consider and address cumulative conditions, as warranted.

If multiple projects are under construction in the area simultaneously that would affect the same sidewalk(s), the Worksite Traffic Control Plan and the Pedestrian Safety Plan require that the Applicant coordinate with LADOT, neighboring property management, and surrounding construction related project representatives to ensure pedestrian safety and access to neighboring properties is maintained, taking into account the effects of the Project in concert with other nearby development.

Furthermore, as with the Project, construction worker traffic typically avoids the peak hours, and it is anticipated that many of the related projects, like the Project, would restrict construction truck traffic and deliveries to off-peak hours to the extent feasible. The Construction Traffic Management Plan would outline measures to manage construction-related traffic (e.g., pedestrian and vehicular traffic controls) throughout the day to maintain traffic flows on public roadways and reduce the effects on the surrounding community, taking into account other nearby development projects. **While there may be**

temporary, nuisance-level disruptions of traffic flow and pedestrian and bicycle movements in the project vicinity due to cumulative construction activities, the Project would not make a cumulatively considerable contribution to a significant cumulative construction traffic impact.

(2) Operations

(a) *Potential Conflict with Program, Plans, Ordinances or Policies Addressing the Circulation System*

The Transportation Study assesses the Project's impacts in the context of both existing baseline conditions and future (2023) conditions. Traffic projections at the Study Area intersections accounted for two growth factors for future (2023) conditions: traffic generated by the 195 related projects and a growth factor to account for other ambient growth occurring in the region. Therefore, the analysis of future traffic conditions in 2023 provides the cumulative impacts analysis for the Project because it considers the Project's traffic together with the traffic generated by future planned land uses, and accounted for cumulative impacts associated with future growth.

The analysis of intersection impacts evaluated pursuant to the TIS Guidelines in Threshold a), above, concludes that, in the Future With Project Conditions, there would be a significant impact at the intersection of Olive Street & Olympic Boulevard (Intersection No. 19) during the morning and afternoon peak hours; and Grand Avenue & 11th Street (Intersection No. 12), Olive Street & Pico Boulevard (Intersection No. 21) and Olive Street & 17th Street (Intersection No. 23), during the afternoon peak hour. Therefore, the Project's contribution to cumulatively significant impacts to intersections would be significant. Mitigation measures to reduce the significant cumulative impacts at these intersections to less than significant levels are provided below.

As discussed in the analysis pertaining to the CMP above, the regional transportation system analysis, including public transit, is based on CMP procedures that have been developed to address countywide cumulative growth impacts on regional transportation facilities. The CMP Guidelines contain procedures for monitoring land use development levels and transit system performance by local jurisdictions and Metro; and therefore the CMP Guidelines inform the planning of infrastructure improvements to meet future needs, including development of the CMP Capital Improvement Program (CIP). As concluded in the discussion of Project impacts above, the Project would have a less than significant impact on the regional transportation system, including the affected arterials, mainline freeway segments and freeway ramps, pursuant to the CMP procedures for addressing cumulative growth and therefore would not result in a cumulatively considerable contribution to impacts at CMP facilities.

Finally, as also discussed above, the Project is subject to plans and policies regarding transit, bikeways and pedestrian facilities. As was the case with the Project, development in the Downtown area is occurring pursuant to the General Plan, inclusive of the

Community Plan, and the zoning code, to support population densities and distributions that encourage the use of alternative modes of transportation, including the use of public transit (rail and bus services), as well as bike lanes and the high quality pedestrian network that links a large array of local and regional uses in the Downtown area. (As discussed further in Section IV.H, *Land Use and Planning*, of this Draft EIR.)

Related Projects in the Downtown area would also be subjected to complementary programs, as applicable, that support alternative transportation modes such as MyFig, *Mobility Plan 2035* and other efforts to improve pedestrian and bicycle facilities in the area. New development would be designed to be consistent with provisions of the Downtown Design Guide, which requires individual developments to incorporate building massing, open space, landscaping features, and street treatments that enhance the local pedestrian network and accessibility to alternative modes of transportation.

As discussed above, the Project would not conflict with plans, policies or regulations regarding the implementation of, and support for transit, bicycle and pedestrian modes of transportation. Rather, the Project includes numerous features that would support and enhance the use of these alternative modes of transportation. It includes improvements to sidewalks adjacent to and within the Project Site, the addition of setbacks, shade, benches, and pedestrian-scale lighting, etc., along the Olive Street and 11th Street edges of the Project Site, and pedestrian-scale retail commercial uses along street frontages. It would also implement mitigation measure TRAF-MM-1: TDM Program, which would implement a TDM program requiring on-site bicycle facilities; the provision of information regarding the availability of, and encouraging the use of, public transit; and the payment of funds to support off-site improvements regarding bicycle services and first/last mile transit accessibility. Therefore, the Project would not make a cumulatively considerable contribution to adverse cumulative effects regarding the use of alternative modes of transportation.

(b) *Vehicle Miles Traveled*

According to the TAG, short-term VMT cumulative effects should be based on the project-level VMT analysis performed for a particular project. As indicated above, the Project's Household VMT per Capita would be 4.2 compared to the threshold of 6.0, and the Work VMT per Capita would be less than significant. Therefore, the Project's short-term cumulative impacts would be less than significant.

According to the TAG, the long-term, VMT cumulative effects should be determined through a consistency check with the SCAG 2016-2040 RTP/SCS. The 2016-2040 RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and GHG reduction targets. As such, projects that are consistent with this plan in terms of development location, density, and intensity, are part of the regional solution for meeting air pollution and GHG goals. Projects that are deemed to be

consistent would have a less than significant cumulative impact on VMT.⁴¹ In addition, projects that fall under the City's efficiency-based impact thresholds are already shown to align with the long-term VMT and greenhouse gas reduction goals of SCAG's 2016-2040 RTP/SCS.

The Project's growth individually and cumulatively, inclusive of the related projects considered in the Project's Transportation Study, is evaluated in Section IV.K, *Population and Housing*, of this Draft EIR. As demonstrated in that analysis, the Projects growth is consistent with the location, density, intensity, and growth projections in the RTP/SCS, and as the Project's impacts fall under the City's VMT thresholds, therefore the Project's long-term cumulative VMT impacts would be less than significant.⁴²

(c) *Hazards due to Geometric Design and Adequacy of
Emergency Access*

Per the analyses of accessibility and potential hazardous geometric design features under Thresholds c) and d), above, the Project itself would not result in a significant impact regarding vehicular access, pedestrian and bicycle access and facilities; and would not have geometric design features that contribute to hazardous conditions or result in inadequate emergency access. Further, these impacts tend to be specific to each related project site. Each related project would be reviewed by the City to ensure compliance with the applicable requirements relative to the provision of safe access for vehicles, pedestrians and cyclists. Access to each site would be assessed during the City's review process to ensure compliance with the City's requirements, which were established to minimize potential impacts. Therefore, the Project would not make a cumulatively considerable contribution to a cumulative impact involving vehicular access, pedestrian and bicycle access.

Accordingly, the Project would not result in a cumulatively considerable contribution to a significant cumulative traffic impact impacts due to Project operations.

f) Mitigation Measures

(1) Construction

Traffic impacts due to construction activity would be less than significant. No mitigation measures are required.

(2) Operations

Under the Future with Project Conditions, the Project would cause potentially significant impacts at one intersection during the morning and afternoon peak hours (Intersection

⁴¹ Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines, page 20. https://ladot.lacity.org/sites/g/files/wph266/f/TA_Guidelines_%2020190731.pdf. Accessed September 12, 2019.

⁴² Refer to Section IV.5, *Population and Housing*, of this Draft EIR.

No. 19, Olive Street & Olympic Boulevard) and at three intersections during the afternoon peak hour (Intersection No. 12, Grand Avenue & 11th Street, Intersection No. 21, Olive Street & Pico Boulevard and Intersection No. 23, Olive Street & 17th Street).

The Transportation Study provides a discussion of the feasible mitigation measures for reducing Project impacts and recommends mitigation measures to reduce significant intersection impacts to less than significant levels. The Transportation Study evaluated the feasibility and effectiveness of three types of mitigation: physical improvements, transportation system management measures and trip reductions measures (i.e., TDMs).

The Transportation Study concluded that no physical improvements were feasible within the Project's dense urban area. Re-striping traffic lanes and/or adding traffic lanes to modify intersection lane configurations, roadway widenings, or potential changes to signal timing and phasing roadway widenings are not feasible due to the lack of available right-of-way. Also, lane re-stripings are generally not feasible as they would result in inadequate lane widths; and signal timing/phasing changes are generally not feasible as they would worsen rather than improve intersection operations or potentially cause other problems and/or impacts elsewhere. Furthermore, roadway widening at the expense of narrower sidewalks, or additional traffic lanes at the expense of pedestrian crossing convenience are not consistent with City goals to achieve a balance in the provision of vehicular, transit, and pedestrian traffic.

Potential improvements in the movement of vehicles through the roadway system can be provided through improvements to the City's ATSAC/ATCS traffic signal control system that controls the efficiency of traffic movement. Upgrades to make the system more efficient include improved traffic signal controllers, closed-circuit television (CCTV) cameras that provide visual information to the City's ATSAC Traffic Control Center, and system detection loops at key intersections to provide real-time information to the City's ATSAC Traffic Control Center. LADOT has determined that when implemented, these traffic system management improvements increase the capacity of intersections along corridors in the system by 1 percent (0.01 improvement in the V/C ratio).

Trip reduction measures also improve traffic flow, transit service, pedestrian circulation, and overall mobility by reducing the number of trips associated with individual automobiles and converting those trips to alternative modes of transportation. A range of trip reduction measures were considered for the preparation of a TDM program for the Project. In conjunction with LADOT, a review of research indicates such measures can reduce vehicle trips by 5 percent to over 20 percent, and it was therefore conservatively estimated that the set of recommended measures identified for this Project could reduce the overall number of vehicle trips generated by the Project by approximately 15 percent.

Accordingly, the mitigation measures proposed to reduce the Project's future baseline significant impacts include implementation of transportation demand reduction measures and provisions for signalization improvements (support for the City's ATSAC/ATCS traffic control systems).

TRAF-MM-1: Transportation Demand Management (TDM) Program: The Project shall implement a TDM program to encourage the use of non-auto modes of transportation and reduce vehicle trips. A preliminary TDM program shall be prepared and provided for LADOT review prior to the issuance of the first building permit for the Project and a final TDM program shall be approved by DOT prior to the issuance of the first certificate of occupancy. The preliminary plan shall include, at a minimum, measures consistent with the City's Trip Reduction Ordinance. As recommended by the Project's Transportation Study, the TDM program shall include, but not be limited to the following strategies:

- Promotion and support of carpools and rideshares, including parking and transit incentives;
- Preferential parking for carpools and vanpools for employees;
- Provide on-site real-time information displays to make available real-time information on car-sharing, transit, vanpools, taxis;
- Transit Welcome Package – to all new residents/employees with info on alternate modes and walk to destination opportunities;
- Unbundling of residential parking;
- Participate in a Car-Share Program to provide vehicle spaces for car share vehicles;
- Provide access to collapsible shopping carts and/or cargo bike for ease of local shopping;
- Provide discounts for employees who utilize public transit to travel from the project site;
- On-site bicycle amenities such as access to free bicycles for residential guests, on-site repair station and bicycle racks, and lockers/showers for residents and employees;
- Provide a free bike share service for residents;
- Participate in the City's Bike Share Program by providing an area for bike share facility
- A one-time fixed-fee contribution of \$75,000 to be deposited into the City's Bicycle Plan Trust Fund prior to the issuance of any certificates of occupancy to be used to implement bicycle improvements within the Project area;
- Make a one-time financial contribution of \$75,000 to the City of Los Angeles Department of Transportation for the implementation of First and Last Mile transit access measures in the vicinity of the project site;
- Ridesharing Services Program which would match employees together to establish carpools and vanpools;

- Record a Covenant and Agreement to ensure that the TDM program will be maintained.

In order to assess the Project's actual trip generation and any subsequent TDM Plan (if deemed necessary), a traffic monitoring plan shall be implemented once the Project is built and occupied to equilibrium (i.e., the level at which the owner/management deems maximum occupancy). The monitoring program shall be conducted annually to ensure compliance for a period of three years. If the Project is found to not conform to the trip reduction targets of 30 trips in the AM peak hour and 33 trips during the afternoon peak hour,⁴³ the Project shall have an additional year to meet the trip reduction levels. If the Project continues to not meet the TDM goals, the City and Project staff shall cooperate on implementing further TDM Strategies. The final traffic monitoring plan and TDM Plan shall be prepared for and approved by the LADOT prior to the issuance of the first certificate of occupancy for the project.

TRAF-MM-2: Transportation System Management (TSM) Improvements. The project shall contribute up to \$100,000 toward TSM improvements to intersections within the vicinity of the Project that may be considered to better accommodate intersection operations and increase intersection capacity throughout the Project's Transportation Study area.

A final determination on how to implement the TSM improvements will be made by LADOT prior to the issuance of the first building permit. These TSM improvements shall be implemented either by the Applicant through the B-Permit process of the Bureau of Engineering (BOE), or through payment of a one-time fixed fee of \$100,000 to LADOT to fund the cost of the upgrades.

- If LADOT selects the payment option, then the Applicant shall pay \$100,000 to LADOT, and LADOT shall design and construct the upgrades.
- If the upgrades are implemented by the Applicant through the B-Permit process, then these TSM improvements shall be guaranteed prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Temporary certificates of occupancy may be granted in the events of any delay through no fault of the Applicant, provided that, in each case, the Applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT.

⁴³ As summarized in Attachments 11 and 12 of the LADOT Correspondence regarding the Transportation Study Assessment, included in Appendix N of this Draft EIR,

g) Level of Significance after Mitigation

(1) Construction

The Project would result in less than significant impacts with respect to construction traffic. No mitigation measures are required.

(2) Operation

The Project would result in less-than-significant impacts with regard to programs, plans, ordinances and policies regarding CMP facilities (the regional transportation system and public transit), and transit, bicycle and pedestrian facilities; VMT; as well as hazards/access. No mitigation measures for these topics are required.

The analysis of the Project's impacts in regard to the LADOT TIS Guidelines concluded that under the Future with Project Conditions, the Project would cause potentially significant congestion impacts at four intersections. Mitigation measures are proposed above to reduce the potentially significant impacts.

The Project's mitigation measures would reduce the Project's trip generation and the traffic operations equipment such that there would reductions in the Future (Year 2023) With Project Operating Conditions, after implementation of the Project. Chapter 7 of Transportation Study provides a detailed analysis of the mitigation measures and the operating conditions at all of the Study Intersections. The results of the mitigation program are summarized in **Table IV.M-6, Future With Project With Mitigation Conditions - Intersection Level of Service**, for the morning and afternoon peak hours at the intersections that were identified above as having potentially significant impacts. As indicated in Table IV.M-6, the implementation of the mitigation measures would reduce potentially significant impacts to less than significant levels.

**TABLE IV.M-6
FUTURE WITH PROJECT WITH MITIGATION CONDITIONS - INTERSECTION LEVEL OF SERVICE**

No.	Intersection	Peak Hour	Future Without Project		Future With Project		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Fully Mitigated?
			V/C	LOS	V/C	LOS			V/C	LOS			
12	Grand Avenue & 11th Street	A.M.	0.442	A	0.471	A	0.029	No					
		P.M.	0.910	E	0.920	E	0.010	Yes	0.918	E	0.008	No	Yes
19	Olive Street & Olympic Boulevard	A.M.	0.971	E	0.989	E	0.018	Yes	0.975	E	0.004	No	Yes
		P.M.	1.153	F	1.163	F	0.010	Yes	1.151	F	-0.002	No	Yes
21	Olive Street & Pico Boulevard	A.M.	0.854	D	0.862	D	0.008	No					
		P.M.	1.076	F	1.098	F	0.022	Yes	1.085	F	0.009	No	Yes
23	Olive Street & 17th Street	A.M.	0.937	E	0.940	E	0.003	No					
		P.M.	1.017	F	1.028	F	0.011	Yes	1.026	F	0.009	No	Yes

SOURCE: The Mobility Group, June 2019

IV.N Tribal Cultural Resources

1. Introduction

This section identifies and evaluates potential Project impacts on tribal cultural resources. The analysis in this section is based on the results of consultation with California Native American Tribes conducted by the City of Los Angeles (City) for the Project, as required by the California Environmental Quality Act (CEQA) as recently amended by Assembly Bill (AB) 52, as well as the results of the analysis of archaeological resources in the *Cultural Resources Assessment Report* included as Appendix D of this Draft EIR.¹ The Native American consultation documentation is provided in Appendix O of this Draft EIR.

Tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register) or included in a local register of historical resources, or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code (PRC) Section 5024.1.² A cultural landscape that meets these criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.³ Historical resources, unique archaeological resources, or non-unique archaeological resources may also be tribal cultural resources if they meet these criteria.

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) Assembly Bill 52

AB 52 was approved on September 25, 2014. The act amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) is filed on or after July 1, 2015. The primary intent of AB 52 was to involve California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans, that

¹ Environmental Science Associates, 1045 Olive Project, Phase I Cultural Resources Assessment Report, August 2018.

² Public Resources Code, Section 21074 (2)

³ Public Resources Code, Section 21074 (b)

require consideration under CEQA, known as tribal cultural resources. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

PRC Section 21080.3.1 requires that, within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency of projects within their geographic area of concern.⁴ Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation.⁵

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project’s impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.⁶

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR or adopt an MND.⁷

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any

⁴ Public Resources Code, Section 21080.3.1(b)

⁵ Public Resources Code, Sections 21080.3.1(d) and 21080.3.1(e)

⁶ Public Resources Code, Section 21080.3.2(b)

⁷ Public Resources Code, Section 21082.3(d)(2) and (3)

other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

However, confidentiality, does not apply to data or information that are, or become publicly available, are already in lawful possession of the project applicant before the provision of the information by the California Native American tribe, are independently developed by the Project applicant or the Project applicant's agents, or are lawfully obtained by the Project applicant from a third party that is not the lead agency, a California Native American tribe, or another public agency.⁸

b) Existing Conditions

(1) Ethnographic Context

The Project Site is located within an area that has been inhabited by the contemporary Native American group known as the Gabrielino.⁹ The florescence of this group occurred during a time period that spanned from approximately 1,500 years B.P. to the mission era, with the arrival of Spanish expeditions and the establishment of the mission system.¹⁰ Coming ashore near Malibu Lagoon or Mugu Lagoon in October of 1542, Juan Rodriguez Cabrillo was the first European to make contact with the Gabrielino Indians. Occupying the southern Channel Islands and adjacent mainland areas of Los Angeles and Orange Counties, the Gabrielino are reported to have been second only to their Chumash neighbors in terms of population size, regional influence, and degree of sedentism.¹¹ The Gabrielino are estimated to have numbered around 5,000 in the pre-contact period¹² and maps produced by early explorers indicate that at least 26 Gabrielino villages were within proximity to known Los Angeles River courses, while an additional 18 villages were reasonably close to the river.¹³ Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game were hunted with deadfalls, rabbit drives, and by burning

⁸ Public Resources Code, Section 21082.3(c)(2)(B).

⁹ The term "Gabrielino" is a general term that refers to those Native Americans who were administered by the Spanish at the Mission San Gabriel Arcángel. Prior to European colonization, the Gabrielino occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina.

¹⁰ Wallace, A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology*.

¹¹ Bean, Lowell J., and Charles R. Smith, *Gabrielino, in California*, edited by R.F. Heizer, pages 538-549 *Handbook of North American Indians*, Vol. 8, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C., 1978.

¹² Kroeber, A. L. *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78. Smithsonian Institution, Washington, D.C., 1925.

¹³ Gumprecht, Blake, *Los Angeles River: Its Life, and Possible Rebirth*, The Johns Hopkins University Press, Baltimore, 1999, reprinted 2001.

undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison.¹⁴ The primary plant resources were the acorn, gathered in the fall and processed with mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly leafed-cherry.¹⁵

The Project Site is located in a region traditionally occupied by the Takic-speaking Gabrielino Indians. The term “Gabrielino” is a general term that refers to those Native Americans who were administered by the Spanish at the Mission San Gabriel Arcángel. Prior to European colonization, the Gabrielino occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina.¹⁶ Their neighbors included the Chumash to the north, the Juañeno to the south, and the Serrano and Cahuilla to the east. The Gabrielino are reported to have been second only to the Chumash in terms of population size and regional influence.¹⁷ The Gabrielino language is part of the Takic branch of the Uto-Aztecan language family.

The Gabrielino Indians were hunter-gatherers and lived in permanent communities located near the presence of a stable food supply. Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game were hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison.¹⁸ The primary plant resources were the acorn, gathered in the fall and processed in mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly-leafed cherry.

Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino are estimated to have had a population numbering around 5,000 in the pre-contact period.¹⁹ Gabrielino villages are reported by early explorers to have been most abundant near the Los Angeles River, in the San

¹⁴ Bean, Lowell J., and Charles R. Smith, Gabrielino, in California, pages 538-549.

¹⁵ Reid, Hugo, Letters on the Los Angeles County Indians. In A Scotch Paisano in Old Los Angeles, by Susanna Bryant Dakin, pages 215–286. University of California Press, 1939 [1852].

¹⁶ Kroeber, A. L. 1925. Handbook of the Indians of California. Bureau of American Ethnology, Bulletin 78. Smithsonian Institution, Washington, D.C.

¹⁷ Bean, Lowell J., and Charles R. Smith. 1978. Gabrielino, in California, edited by R.F. Heizer, pp. 538-549 Handbook of North American Indians, Vol. 8, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

¹⁸ Bean, Lowell J., and Charles R. Smith. 1978. Gabrielino, in California, edited by R.F. Heizer, pp. 538-549 Handbook of North American Indians, Vol. 8, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

¹⁹ Kroeber, A. L. 1925. Handbook of the Indians of California. Bureau of American Ethnology, Bulletin 78. Smithsonian Institution, Washington, D.C.

Fernando Valley, the Glendale Narrows area north of Downtown, and around the Los Angeles River's coastal outlets.²⁰ Among those villages north of Downtown are *Maawnga* in the Glendale Narrows; *Totongna* and *Kawengna*, in the San Fernando Valley; *Hahamongna*, northeast of Glendale; and the village of *Yaangna*, in the vicinity of present-day Downtown Los Angeles.²¹

The exact location of *Yaangna* within Downtown Los Angeles continues to be debated, although it was possibly located at the present-day location of the Civic Center.²² Other possible locations are near the present day Union Station²³, to the south of the old Spanish Plaza, and near the original site of the Bella Union Hotel located on the 300 Block of North Main Street.²⁴ Dillon (1994:30) hypothesizes that the Union Station location is an unlikely spot for a large village or habitation, as it lies within the annual Los Angeles River flood zone. Local sources such as the Echo Park Historical Society report that when Gaspar de Portola and Father Juan Crespi camped on the river bank opposite the North Broadway Bridge entrance to Elysian Park, they were served refreshments by *Yaangna* Indian villagers from the current location of the Los Angeles Police Academy.²⁵

Based on baptismal records, *Yaangna* appears to have been occupied until at least 1813. But by the early 1820s, *Yaangna*'s Gabrielino residents were displaced to an area south of the village site in what is presently the block north of Los Angeles Street and 1st Street, approximately 1.3 miles northwest of the Project Site.²⁶ By 1836, the displaced Gabrielino community was known as *Rancho de los Pablinos*, and Los Angeles residents began complaining about the Gabrielino bathing in the *Zanjas*.²⁷ As a result of the complaints, the Gabrielino were once again displaced farther to the east near the present-day intersection of Alameda Street and Commercial Street, approximately 1.22 miles northeast of the Project Site. Between 1845 and 1847, they were moved to the east side of the river to a settlement that was known as *Pueblito*, and by 1847, the Gabrielino from

²⁰ Gumprecht, Blake. 2001. Los Angeles River: Its Life, and Possible Rebirth, The Johns Hopkins University Press, Baltimore, Reprinted 2001.

²¹ McCawley, William. 1996. The First Angelinos: The Gabrielino Indians of Los Angeles, Malki Museum Press, Banning, California.

²² McCawley, William. 1996. The First Angelinos: The Gabrielino Indians of Los Angeles, Malki Museum Press, Banning, California.

²³ Chartkoff and Chartkoff 1972. Map 38. Selected sites of the Late and Final Pacific periods (A.D. 500-1769), The Archaeology of California. Menlo Park: Stanford University Press.

²⁴ Dillon, B.D. 1994. Alameda District Plan, Los Angeles, California, Prehistoric and Early Historic Archaeological Research. On file, South Central Coastal Information Center, California Historic Resources Inventory System, University of California, Los Angeles.

²⁵ Echo Park Historical Society 2015, Elysian Park, Los Angeles' First Park, <http://historicechopark.org/history-landmarks/places-landmarks/elysian-park/>. Accessed July 9, 2018.

²⁶ Morris, Susan L., John R. Johnson, Steven J. Schwartz, Rene L. Vellanoweth, Glenn J. Farris, and Sara L. Schwebel. 2016. The Nicoleno in Los Angeles: Documenting the Fate of the Lone Woman's Community. In *Journal of California and Great Basin Archaeology* 36(1): 91-118.

²⁷ Morris, Susan L., John R. Johnson, Steven J. Schwartz, Rene L. Vellanoweth, Glenn J. Farris, and Sara L. Schwebel. 2016. The Nicoleno in Los Angeles: Documenting the Fate of the Lone Woman's Community. In *Journal of California and Great Basin Archaeology* 36(1): 91-118.

Yaanga were displaced once again and left without a place in which to form a new community. As a result, the Gabrielino dispersed throughout Los Angeles County.

A second community or village, named *Geveronga*, may have been located in the vicinity of the current Downtown Los Angeles' city center or central plaza which is near the current day Olvera Street and Plaza Church, reported in the San Gabriel baptismal records as located "in the rancheria adjoining the Pueblo of Los Angeles."²⁸

(2) Consultation and Research

(a) Consultation

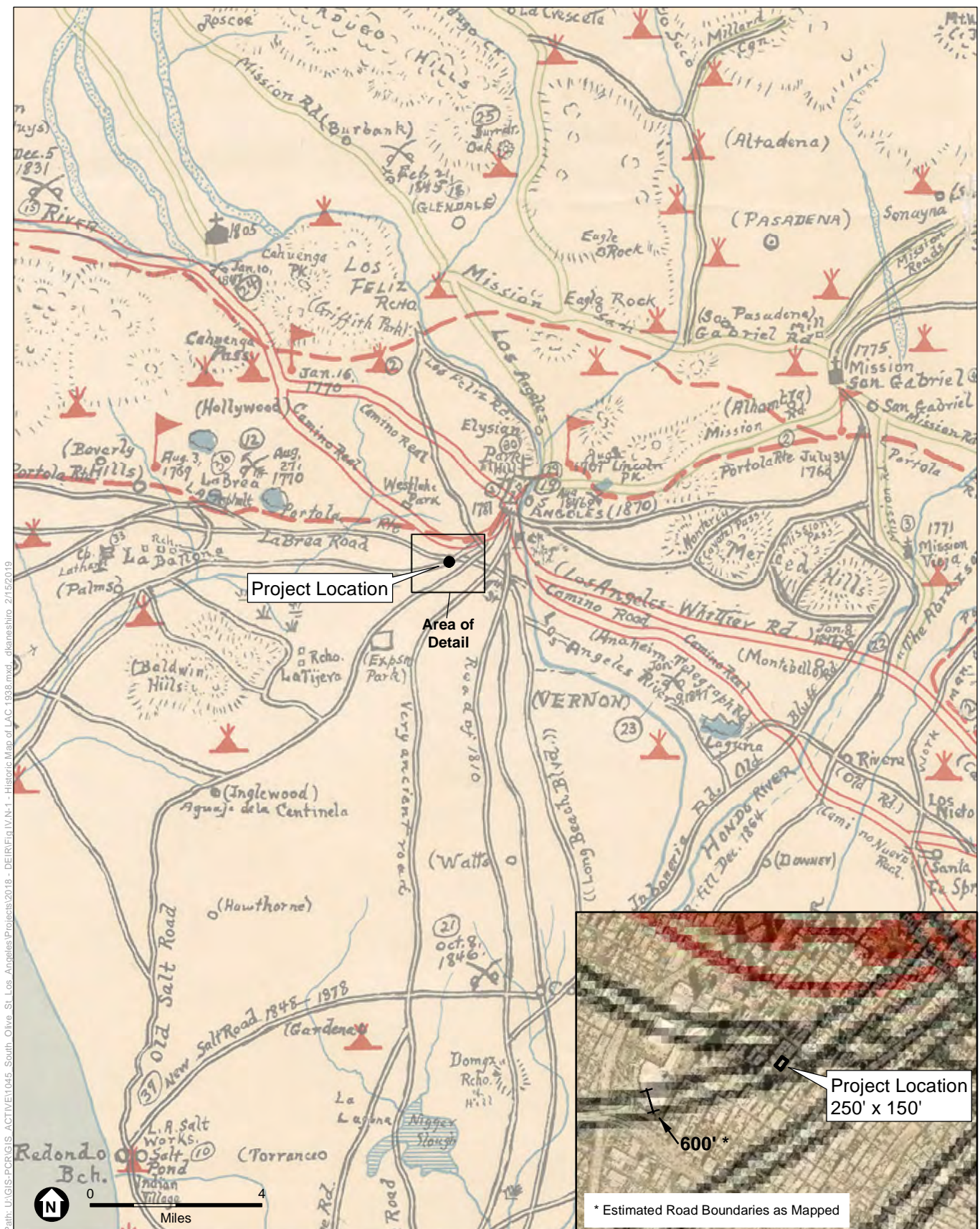
On December 21, 2017, the City submitted formal notification letters to nine Native American individuals and organizations on the City's AB 52 Notification List. In response to the formal notification letter, on February 8, 2018, the City received a letter via email from Brandy Salas, Administrative Specialist of the Gabrieleño Band of Mission Indians (Tribe) requesting formal consultation. In this letter, Ms. Salas also provided: 1) a Google Earth map with the Project site and an overlay of the 1938 Kirkman-Harriman Pictorial and Historical Map of Los Angeles County, and 2) the Definition of a Tribal Cultural Resource according to CEQA. On February 8, 2018, the City replied to the Tribe via phone meeting. The City of Los Angeles discussed the map and details of the Project with Mr. Andrew Salas, Tribal Chairman and Mr. Matthew Teutimez, a tribal member. The Tribe provided additional details of the map and described trading routes depicted in the map. To date, the City has not received any further response letters from the Native American community as part of the AB 52 Tribal consultation effort. Consultation was closed on September 4, 2019.

The *Kirkman-Harriman Pictorial and Historical Map of Los Angeles County* (1938),²⁹ as shown on **Figure IV.N-1**, was reviewed as part of the context research for this study. The map depicts that the Project Site appears to be located near the crossroads of an unmarked road that heads south west from Downtown Los Angeles toward Playa Del Rey, curving to the north to intersect with Colorado Street in Santa Monica and a second road which is labeled as the "La Brea Road." La Brea Road is depicted as heading to the west from Downtown Los Angeles, and passing the La Brea Tar Pits before heading west and eventually turning north in Santa Monica toward Topanga and Malibu.³⁰

²⁸ McCawley, William. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*, Malki Museum Press, Banning, California.²⁹ Kirkman, George W. *Kirkman-Harriman Pictorial and Historical Map of Los Angeles County: 1860 A.D. – 1937 A.D.* Map on File: Los Angeles Public Library. 1938. Included in Appendix O of this Draft EIR.

²⁹ Kirkman, George W. *Kirkman-Harriman Pictorial and Historical Map of Los Angeles County: 1860 A.D. – 1937 A.D.* Map on File: Los Angeles Public Library. 1938. Included in Appendix O of this Draft EIR.

³⁰ The Pictorial and Historical Map of Los Angeles County is based off of three control points located at southwest corner near Malibu, California, northwest corner near Gorman, California, and northeast corner near Kramer Junction, California. In reviewing the map, it was taken into account that the Los Angeles County boundary has changed somewhat from the 1938 boundary.



SOURCE: Kirkman-Harriman Pictorial and Historical Map of Los Angeles County (1938)

1045 Olive Project

Figure IV.N-1
Kirkman-Harriman Pictorial and
Historical Map of Los Angeles County (1938)

At this referenced scale, the map shows the Project Site at the intersection of an unnamed road heading west and then south to the coast and the map's depiction of the "La Brea Road." However, according to the scale, the 1938 map's unnamed road would have had a width of approximately 600 feet. The scale of the road does not appear to represent the road's width accurately as it was likely much narrower.

La Brea Road appears to be in the location of present-day Wilshire Boulevard which leads from downtown Los Angeles and passes adjacent the La Brea Tar Pits. Wilshire Boulevard is on average approximately 100-feet wide in both downtown Los Angeles and at the La Brea Tar Pits. The estimated accuracy of the map placement is ± 500 -2500 feet. Due to the scale and accuracy of the map, it is unknown if the Project Site falls within either road. Although the map shows old roads and trails, it does not depict or record any resources or sites in this location. Regardless of where it falls, although the map suggests the location of roads and trails, it does not provide any documentation of known resources, and nor has the investigation. Therefore, the map does not provide substantial evidence that any known sacred lands or tribal cultural resources, as defined in PRC Sections 5020.1(k), 5024.1, or 21074, which overlap with or occur within the Project Site, or that any known sacred lands or Tribal cultural resources would be affected by the Project.

(b) SCCIC Records Search

A records search for the Project was conducted on December 7, 2017 at the California Historical Resources Information System South Central Costal Information Center (SCCIC) located at California State University, Fullerton. The records search included a review of previous cultural resources studies and previously-recorded cultural resources including archaeological resources within the Project Site and a 0.5-mile radius, and historic architectural resources within the Project Site and a 0.25-mile radius. Although the information center does not provide or keep data regarding tribal cultural resources specifically, this more generalized search of archeological resources disclosed no cultural resources on the Project Site or within a 0.5-mile radius.

(c) Sacred Lands File Search

Also, the NAHC was contacted on November 16, 2017 to request a search of their confidential Sacred Lands File (SLF). The SLF contains a record of sites of traditional, cultural, or religious value to the Native American community. The NAHC was provided information such as Project Site location and a brief description of the proposed Project, and a request for a search of the SLF for the Project Site. The NAHC responded to the SLF request in a letter stating that the SLF search was negative for the presence of Native American cultural resources within the Project Site.

(d) Geotechnical Context

According to the *Geotechnical Analysis* of the Project Site, Appendix F of this Draft EIR, the Project Site lies above artificial fill with depths of 7 to 9.5 feet below ground surface (bgs). In 0 to 7-foot range these fill soils contain wood, cement and brick fragments. The

fill can likely be attributed to agricultural use, the turn of the century development and demolition of previous residential structures for the development of the current structures. Below the artificial fill is Holocene-aged younger Quaternary alluvium and Pleistocene-aged older Quaternary Alluvium and the Pliocene-aged Fernando Formation.

3. Project Impacts

a) Thresholds of Significance

In analyzing potential Tribal Cultural Resources impacts in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the thresholds of significance. The L.A. CEQA Thresholds Guide does not identify any criteria for the evaluation of significant impacts to tribal cultural resources.

In accordance with the State CEQA Guidelines Appendix G, the Project would have a significant impact related to cultural resources if it would:

- a. ***Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***
 - i) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k), or***
 - ii) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

The L.A. CEQA Thresholds Guide does not identify any criteria for the evaluation of significant impacts to tribal cultural resources.

b) Methodology

The analysis of tribal cultural resources is primarily based on notification and request to consult letters that the City submitted to Native American individuals and organizations as well as follow-up letters to Native American individuals and organizations pursuant to AB 52. Specifically, the City submitted the notification letters to nine Native American individuals and organizations on the City's AB 52 Notification List on December 21, 2017.

In addition, database searches conducted for the *Cultural Resources Assessment Report*, Appendix D of this Draft EIR, are summarized in this section. A records search for the Project was conducted on December 7, 2017 at the California Historical Resources Information System SCCIC located at California State University, Fullerton. The records search included a review of previous cultural resources studies and previously-recorded cultural resources including archaeological resources within the Project Site and a 0.5-mile radius. Also, the NAHC was contacted on November 16, 2017 to request a search of their confidential SLF. The SLF contains a record of sites of traditional, cultural, or religious value to the Native American community.

Finally, a review of the *Geotechnical Analysis* prepared for the Project Site, Appendix F of this Draft EIR, was conducted in order to provide a context regarding the previous disturbance of soils at the Project Site.

c) Project Characteristics

No specific Project Design Features are proposed with regard to tribal cultural resources.

d) Analysis of Project Impacts

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

- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)? Less than Significant.***
- ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? Less than Significant.***

The City submitted request to consult letters to nine Native American individuals and organizations on the City's AB 52 Notification List on December 21, 2017 as part of the AB 52 Tribal consultation effort. As determined through the City's consultation with Native

American Tribes who requested consultation, no Tribal cultural resources have been identified within the Project Site.

As discussed in the Setting section above, once requested by the Tribe, consultation between the City and the Gabrieleno Band of Mission Indians–Kizh Nation was conducted. No Tribal cultural resources as defined in PRC Section 21074(a)(1) that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1 (k), or that are determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to PRC Section 5024.1, have been identified within the Project Site.

During AB 52 consultation, the Tribe stressed the potential tribal cultural resources sensitivity of the Project Site and indicated that the Project Site vicinity maintains a high sensitivity for having the potential to encounter resources of prehistoric and historic resources that may be identified as tribal cultural resources. The documentation provided by the tribe as a result of AB 52 consultation described that trading routes were not just roads, as human activity occurred along these routes, and therefore, tribal cultural resources have been found along trading routes.

During the consultation, and as evidence of the existence of these routes, the Kirkman-Harriman Pictorial and Historical Map³¹ was provided by the Tribe to the City. Review of the map indicated that the Project Site is located near an intersection of two roads depicted on the map. Due to the scale and accuracy of the map, it was not possible to know if the Project Site falls within either road. However, regardless of where it falls, the map was provided to establish sensitivity but it does not provide substantial evidence that any known sacred lands or tribal cultural resources, as no such resources are recorded on the map, as defined in PRC Sections 5020.1(k), 5024.1, or 21074. In addition, no substantial evidence was presented that such resources overlap with or occur within the Project Site, or that any known sacred lands or Tribal cultural resources would be affected by the Project.

Review of the documentation did, however, support the conclusion reached in Section IV.C, *Cultural Resources*, of this Draft EIR, that the Project Site has potentially high sensitivity for buried archaeological resources. Once encountered, these could potentially be considered a tribal cultural resource. Mitigation measure CULT-MM-2 provided in Section IV.C, *Cultural Resources*, provides for unanticipated discovery of such archaeological resources. In addition to the cultural mitigation measure, as an added protection for inadvertent discoveries, the Project would be required to comply with the City's standard conditions of approval for the treatment of inadvertent tribal cultural resource discoveries. The Applicant would be required to comply with these conditions, which provide treatment requiring the immediate halt of construction activities in the vicinity of the discovery, the coordination with Native American tribes and the City, and

³¹ Kirkman, George W. Kirkman-Harriman Pictorial and Historical Map of Los Angeles County: 1860 A.D. – 1937 A.D. Map on File: Los Angeles Public Library. 1938

for the development and implementation of appropriate measures for treating the discovery.

For these reasons, the Project would not result in a substantial adverse change in the significance of a Tribal cultural resource as defined in PRC Section 21074. **Less than significant impacts on Tribal cultural resources would occur.**

e) Cumulative Impacts

As demonstrated above, the Project would result in a less than significant impact on a Tribal cultural resource. Specifically, there are no resources listed or determined eligible for listing, on the national, state, or local register of historical resources and the Lead Agency determined that resources identified during AB 52 Tribal consultation are not eligible for listing under the criteria in subsection (c) of the PRC Section 5024.1. Therefore, the Project itself does not make a contribution to a cumulative impact on Tribal cultural resources. Accordingly, the impact to Tribal cultural resources cannot be characterized as a cumulatively considerable contribution to impacts of the Project.

The related projects would, like the Project, be required to comply with regulatory requirements governing Tribal cultural resources, including consultation with California Native American Tribes where required under AB 52. Projects occurring within the City and within the vicinity of the Project would be required to comply with the City's standard conditions of approval for the treatment of inadvertent tribal cultural resource discoveries. These standard City conditions require the immediate halt of construction activities in the vicinity of the discovery, the coordination with Native American tribes and the City, and for the development and implementation of appropriate measures for treating the discovery.

Should an impact be identified, the related projects would be required to comply with PRC Section 21084.3 which would require avoidance and preservation or mitigation as defined in PRC Section 21084.3(b). For these reasons, cumulative impacts on Tribal cultural resources would be less than significant.

f) Mitigation Measures

The Project would result in a less than significant impact with respect to tribal cultural resources. No mitigation measures are required.

g) Level of Significance After Mitigation

Project-level and cumulative impacts on tribal cultural resources would be less than significant.

IV.O Utilities

1. Introduction

Appendix G of the State CEQA Guidelines, Section XIX, *Utilities and Service Systems*, includes five questions pertaining to the availability of utility systems to serve new development. These questions are used by the City as topics for review in the preparation of its Initial Studies. Also, the City has determined to use these questions as the thresholds of significance for the analyses in this Draft EIR.

The Appendix G Questions address issues concerning the capacity of utilities available for service, the infrastructure for delivering the utility services and/or compliance with regulatory measures for providing utility services for the following services respectively: Wastewater, Water Supply, Solid Waste, Storm Water Drainage, Electric Power, Natural Gas, and Telecommunications.

Two of these utility services, Wastewater and Water Supply, are evaluated in the following two subsections of this Utility Section, respectively: Section IV.O.1, *Wastewater*; and Section IV.O.2, *Water Supply*.

Three of the utilities, Electric Power, Natural Gas and Storm Water Drainage, are evaluated for impacts regarding the provision of utility infrastructure in other sections of the Draft EIR as there is overlap between the Appendix G Question regarding impacts on utility infrastructure and impacts regarding the availability of electricity and natural gas resources and the impacts on the drainage patterns within the Project vicinity.

Appendix G Question “Section XIX, a)” asks if a project would: “Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.” The question of whether the Project would require new or expanded storm water drainage, electric power or natural gas facilities, overlaps with and is taken into account in analyses in other sections of this Draft EIR.

In the case of Storm Water Drainage, the analysis of the Project’s impact on storm water drainage facilities is addressed in Section IV.H, *Hydrology and Water Quality*, of this Draft EIR. The analysis therein addresses Appendix G Question “Section X, c)(iii) regarding impacts that would “...create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?” The analysis provided in Section IV.H of this Draft EIR, identifies the existing storm water drainage infrastructure, available capacity to accommodate the Project and the Project Design Features and regulatory measures that would reduce drainage run-off from that currently occurring at the Project Site, concluding

that new or expanded storm water drainage facilities would not be required, and therefore the significant environmental effects resulting from such construction would not occur.

In the case of Electric Power and Natural Gas, the analysis of the Project's impact on electricity and natural gas infrastructure facilities is addressed in Section IV.D, *Energy*, of this Draft EIR. The analysis therein includes an evaluation of the Project's efficiency in the utilization of electricity and natural gas and the Project's potential consistency or conflict with state and local plans for renewable energy or energy efficiency. As components of these evaluations, the Section IV.D analysis identifies the Project's demand for electricity and natural gas usage, the Project's demand on peak load conditions, and the utility infrastructure facilities in place serve the Project Site.

This information serves a basis for addressing conclusions regarding the availability of infrastructure to serve the Project Site. As concluded within that evaluation, construction and operation of the Project would not result in an increase in demand for electricity or natural gas services that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The remaining two utility topics, Solid Waste and Telecommunication, have been determined to not pose potentially significant impacts and therefore do not require further study within Chapter IV., *Environmental Impact Analysis*, of this Draft EIR. Solid Waste was fully analyzed within the Project's *Initial Study*, Appendix A-2, of this Draft EIR; and the findings of that analysis are reported in Chapter VI, *Other CEQA Considerations*, of this Draft EIR (Subsection 6. *Effects Found Not to be Significant*). The topic of telecommunications was not included within the Appendix G Questions at the time that the Project's Initial Study was prepared; but was added effective in 2019. Potential impacts regarding Telecommunications are also evaluated in Subsection VI.6, *Effects Found Not to Be Significant*; and as indicated, do not require further analysis beyond that provided therein.

IV.O.1 Wastewater

1. Introduction

This section analyzes potential Project impacts on wastewater collection and treatment facilities and infrastructure, including whether such existing infrastructure has sufficient capacity to serve the Project. This analysis utilizes a *Civil Engineering Report* prepared for the Project by David Evans and Associates (Utility Report), which includes a *Sewer Capacity Availability Request* (SCAR) prepared by the City of Los Angeles (City).¹ The *Utility Report* is included in its entirety as Appendix P-1 of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

(1) Local

(a) General Plan Framework

The Citywide General Plan Framework Element (General Plan Framework) establishes the conceptual basis for the City's General Plan.² The General Plan Framework sets forth a comprehensive Citywide long-range growth strategy and defines Citywide policies regarding land use, housing, urban form and neighborhood design, open space and conservation, economic development, transportation, infrastructure and public services. Chapter 9, Infrastructure and Public Services, of the City's General Plan Framework identifies goals, objectives, and policies for utilities in the City including wastewater collection and treatment. Goal 9A is to provide adequate wastewater collection and treatment capacity for the City and in basins tributary to City-owned wastewater treatment facilities.³

¹ David Evans and Associates Inc. Consulting Engineers, 1045 Olive – Civil Engineering Report, April 4, 2018.

² City of Los Angeles Department of City Planning, Citywide General Plan Framework, An Element of the Los Angeles General Plan, July 27, 1995, <https://planning.lacity.org/FrameWork.html>. Accessed May 23, 2018.

³ City of Los Angeles Department of City Planning, Citywide General Plan Framework Element, Chapter 9: Infrastructure and Public Services – Wastewater, originally adopted by City Council on December 11, 1996 and re-adopted on August 8, 2001, <http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm>. Accessed May 23, 2018.

(b) *Los Angeles Integrated Resources Plan*

The City's Integrated Resources Plan (IRP) was adopted in November 2006 to provide a collaborative, comprehensive Los Angeles Basin-wide water resources plan.⁴ Jointly developed by the City of Los Angeles Department of Public Works (LADPW), the City of Los Angeles Department of Sanitation (LASAN) and the Department of Water and Power (LADWP), the IRP addressed the interrelated management of wastewater, stormwater, and recycled water in the City and surrounding service areas.

Provisions of the IRP were framed by a series of Guiding Principles that included building new wastewater facilities, decreasing dependency on imported water, identifying the best uses for recycled water, such as for industrial, irrigation, and groundwater recharge purposes, reducing runoff inflow into the wastewater system, increasing reuse of dry weather urban runoff, increasing water conservation, planning for the beneficial use of biosolids; and examining low-cost solutions for meeting the City's future wastewater needs.

To plan for future wastewater management in particular, the IRP projected future wastewater generation based on population projections from the Southern California Association of Governments (SCAG). The forecasted population for the Hyperion Water Sanitary Sewer System (Hyperion Sanitary Sewer System) service area is shown in **Table IV.O.1-1, Population and Average Dry Weather Flow Projections: Hyperion Sanitary Sewer System Service Area**. The Hyperion Sanitary Sewer System includes the Hyperion Water Reclamation Plant (HWRP) that would serve the Project Site; and which is part of the larger City sanitary sewer system, including other treatment plants (i.e., Donald C. Tillman Water Reclamation Plant (DTWRP), Los Angeles-Glendale Water Reclamation Plant (LAGWRP), Terminal Island Water Reclamation Plant, the City's Regional Sanitary Sewer System, connecting outfalls, and numerous sewer connections and major interceptors.

As indicated in Table IV.O.1-1, the IRP projected the 2010 population to be approximately 4,485,054 residents, with approximately 4,641,928 residents in 2015, and approximately 4,854,483 residents in 2020.⁵ The average dry weather flow projected by the IRP was estimated to be approximately 477.3 million gallons per day (mgd) in 2010;⁶

⁴ City of Los Angeles, Integrated Resources Plan – Planning for Wastewater, Recycled Water and Stormwater Management: A Visionary Strategy for the Right Facilities, in the Right Places, at the Right Time, Executive Summary, December 2006, page 3, <https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdew/~edisp/cnt010372.pdf>. Accessed October 23, 2018.

⁵ The population projections provided in Table 3-7 of the IRP are based on Southern California Association of Governments (SCAG) 2002 projections. It should be noted that more recent SCAG projections are available in the 2016 Regional Transportation Plan/Sustainable Communities Strategy. However, as the IRP focuses on the population for the wastewater service area more recent data is not available in that respect.

⁶ City of Los Angeles, Integrated Resources Plan, Volume 1, Wastewater Management, Table 4-11, page 4-16.

approximately 492.3 mgd in 2015;⁷ and approximately 511.5 mgd in 2020,⁸ with each amount falling within the system-wide treatment capacity of 550 mgd, at the time the IRP was adopted. As discussed further below, the estimated wastewater flows have been updated over the years, with estimates below those originally identified in the IRP.

**TABLE IV.O.1-1
POPULATION AND AVERAGE DRY WEATHER FLOW PROJECTIONS:
HYPERION SANITARY SEWER SYSTEM SERVICE AREA**

	2000	2005	2010	2015	2020
SCAG Population	4,138,567	4,331,109	4,485,054	4,641,928	4,854,483
Average Dry Weather Flow (in mgd)	443.1	461.8	477.3	492.3	511.5

SOURCE: Los Angeles Department of Public Works, LA Sanitation, Integrated Resources Plan, Volume 1, Wastewater Management, December 2006, page 3-12.

Despite the then current and future projected availability of system-wide treatment capacity, the IRP included several proposals for improvements, additions, and expansions within the Hyperion Sanitary Sewer System service area to maintain adequate service and expand system capacity over time. Implementation of the IRP included programs to increase the overall capacity of the larger City sanitary sewer system by 20 mgd, for a total of 570 mgd.

Certification of the Final EIR for the IRP included adoption of the "Approved Alternative" (Alternative 4). Components of Alternative 4 included a list of improvement projects to meet future demand for wastewater treatment. The projects were categorized as "Go Projects," which are projects for which associated demand or regulatory triggers had already been met; and "Go If Triggered Projects," which are projects to be implemented if or when additional information or circumstances, such as regulatory determinations, population growth or changes in demand for sewage capacity, "trigger" the need to begin design and construction. Adoption of the IRP also included the Adaptive Capital Improvement Program (CIP), which includes the anticipated capital, operation and maintenance, project timing, and implementation strategy for tracking and monitoring triggers for "Go If Triggered Projects".

⁷ City of Los Angeles, Integrated Resources Plan, Volume 1, Wastewater Management, Table 4-12, page 4-17.

⁸ City of Los Angeles, Integrated Resources Plan, Volume 1, Wastewater Management, Table 4-13, page 4-17.

(c) *Water IRP 5-year Reviews*

LADWP had been monitoring implementation of the IRP and updating its projections via the preparation Water IRP 5-Year Review Final Documents. The last 5-year review, prior to preparation of the One Water LA Plan that now supersedes the 5-year reviews as discussed below, was completed in 2012.⁹ Based on updated 2008 SCAG data, the estimated future flow was 500 mgd by 2020, and approximately 496 mgd by 2018. At the same time, IRP data in the five-year review showed that the actual Hyperion Sanitary Sewer System service area flow was less than projected by the SCAG data used for planning and reflected elsewhere. Per that data, the Hyperion Sanitary Sewer System service area flow had decreased from 400 mgd in 2002 to 350 mgd in 2012.¹⁰ This could be attributed to such factors as water conservation and the economic downturn. The five-year Report estimated noted the reductions in flow requirements indicating that there had been a reduction of wastewater flow of 26.5% relative to the amount estimated in the SCAG projection.

The Water IRP 5-Year Review Final Document also identified a summary compilation of the progress updates between 2007 and 2012 related to new projects and programs, technology, and regulations that could affect the implementation of IRP recommendations.¹¹ The 5-Year Review reported on near-completion of one Go Project (Construction of a 60-million-gallon wastewater storage at the DTWRP Reclamation Plant); moved some of the Go Projects to the Go If Triggered list to reflect their revised prioritization since 2006; and deferred two other Go Projects to beyond the IRP's 2020 horizon date as the associated need is not anticipated. The 5-Year Review also deferred a Go To If Project beyond 2020 due to reduction in need.

(d) *One Water LA 2040 Plan*

The City completed the Final Draft One Water LA 2040 Plan (One Water LA Plan) in April 2018, which replaces previous plans with a new, integrated approach to management of the City's water resources, including surface water, groundwater, potable water, wastewater, recycled water, dry-weather runoff, and stormwater.¹² The new plan builds upon the success of the City's Water IRP, which projected needs and set forth improvements and upgrades to wastewater conveyance systems, recycled water

⁹ City of Los Angeles Department of Public Works, Bureau of Sanitation, and Department of Water and Power, Water Integrated Resources Plan 5-Year Review FINAL Documents, June 2012, <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M211.pdf>. Accessed July 31, 2018.

¹⁰ City of Los Angeles Department of Public Works, Bureau of Sanitation, and Department of Water and Power, Water Integrated Resources Plan 5-Year Review FINAL Documents, June 2012, <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M211.pdf>. Accessed July 18, 2018. Detail pertaining to the revised flow projections is included at pages 1-6 thru 1-8 of the Final Documents presentation.

¹¹ City of Los Angeles Department of Public Works, Bureau of Sanitation, and Department of Water and Power, Water Integrated Resources Plan 5-Year Review FINAL Documents, June 2012, <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M211.pdf>. Accessed October 24, 2018.

¹² City of Los Angeles, One Water LA, 2018, https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf. Accessed October 23, 2018.

systems, and runoff management programs through the year 2020, and extends its planning horizon to 2040. The One Water LA Plan is a collaborative approach to managing the City's watersheds, water resources, and water facilities in an environmentally, economically, and socially beneficial manner. Objectives of the One Water LA Plan includes: (1) Integrated management of water resources and policies; (2) Balance environmental, economic, and societal goals; (3) Improve health of local watersheds; (4) Improve local water supply reliability; (5) Implement, monitor and maintain a reliable water system; (6) Increase climate resilience; and (7) Increase community awareness and advocacy for sustainable water.¹³

The One Water LA Plan is also intended as a step toward meeting the Mayor's Executive Directive to reduce the City's purchase of imported water by 50 percent by 2024.¹⁴ Major challenges being addressed during development of the One Water Plan include recurring drought, climate change, and the availability of recycled water in the future in light of declining wastewater volumes.

Volume 2 of the One Water LA Plan provides a Wastewater Facilities Plan (WWFP), which is an update of the Wastewater Facilities Plan that was included in the 2006 IRP. This WWFP incorporates expansions, upgrades, and enhancements made since preparation of the 2006 IRP and builds upon the LADWP 2015 Urban Water Management Plan. Based on substantial water conservation in the past decades, demand hardening and moderate growth, the WWFP projects the City's combined wastewater flows to increase from 328 mgd in 2016 to 376 mgd by 2040.¹⁵ It estimates the average dry weather flow at the HWRP to be 250 mgd, increasing to an estimated value of 283 mgd in 2014.¹⁶

The WWFP provides recommendations for each treatment plant on how to best utilize the water reuse opportunities and provide environmental stewardship. Among the water reuse opportunities taken into account are non-potable reuse (NPR) and potable reuse, groundwater augmentation, raw water augmentation, and treated water augmentation. The WWFP uses a trigger-based capital improvements process for the future integration opportunities, which is similar to the trigger-based approach that was used for the 2005 IRP. The One Water LA Plan and identifies four near-term wastewater collection system

¹³ About One Water Los Angeles, https://www.lacitysan.org/san/faces/home/portal/s-lsh-es/s-lsh-es-owla/s-lsh-es-owla-au?_adf.ctrl-state=wblrx1mfh_5&_afLoop=50595311469749#!. Accessed November 2, 2018.

¹⁴ City of Los Angeles, Office of the Mayor, Executive Directive No. 5, Emergency Drought Response - Creating a Water Wise City, October 14, 2014, https://www.lamayor.org/sites/g/files/wph446/f/page/file/ED_5_-_Emergency_Drought_Response_-_Creating_a_Water_Wise_City.pdf?1426620015. Accessed October 24, 2018.

¹⁵ City of Los Angeles, One Water Los Angeles, 2018, Summary Report, page 7-2, https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf. Accessed November 2, 2018.

¹⁶ City of Los Angeles, One Water Los Angeles, 2018, Table 7.4, page 7-14, and Table 7.7, page 7-27, respectively, https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf. Accessed November 2, 2018.

improvements (LAGWRP Primary Effluent Equalization Storage, NOS Rehabilitation, Venice Pumping Plant Dual Force Main, and Venice Auxiliary Pumping Plant).¹⁷

It is the intent of the WWFP to be updated in approximately ten years after its 2018 adoption to incorporate system modifications as well as changes in flow conditions, regulatory framework, and overall vision for wastewater system operations and water reuse.¹⁸

(f) *Green New Deal*

The City released the first Sustainable City pLAn in April 2015¹⁹, which has been updated in 2019 as the Green New Deal. The Green New Deal includes a multi-faceted approach to developing a locally sustainable water supply to reduce reliance on imported water, reducing water use through conservation, and increasing local water supply and availability. Towards the end, the Green New Deal establishes a Target of recycling 100 percent of all wastewater for beneficial reuse by 2035, which would be an improvement from the fiscal year 2017-2018, baseline of 27 percent.²⁰

Toward this end, the Green New Deal establishes a number of milestones and initiatives:

- 2021: Produce 1.5 mgd of recycled water at HWP for use at LAWA and other local facilities;
- 2025: Recycle 17,000 AFY of water at the Tillman WRP to recharge into groundwater basin;
- 2025/2035: Increase non-potable reuse of recycled water by an additional of 6,000 AFY 2025; and an additional 8,000 AFY by 2035; and
- 2025/2035: Reduce annual sewer spills to fewer than 65 by 2025; and 60 by 2035.

(g) *Sewer System Management Plan*

The State of California, via the State Water Quality Control Board's May 2, 2006 Statewide General Waste Discharge Requirements (WDRs), requires a Sewer System Management Plan (SSMP) to be prepared for all publicly owned sanitary sewer systems.

¹⁷ City of Los Angeles, One Water Los Angeles, 2018, Table 7.3, page 7-13, https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf. Accessed November 2, 2018.

¹⁸ City of Los Angeles, One Water Los Angeles, 2018, Summary Report, page 7-1, https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf. Accessed November 2, 2018.

¹⁹ City of Los Angeles, Sustainable City pLAn, 2015, <http://plan.lamayor.org/wp-content/uploads/2017/03/the-plan.pdf>. Accessed October 11, 2018.

²⁰ City of Los Angeles. LA's Green New Deal, 2019, page 47. http://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf, accessed September 3, 2019.

The plans include measures to control and mitigate sewer spills and must be made available to the public. Accordingly, the City has prepared three SSMPs, one for each of the three separate sanitary sewer systems owned and operated by LA Sanitation: the Hyperion Sanitary Sewer System, which serves the Project Site; City of Los Angeles Regional Sanitary Sewer System; and the Terminal Island Water Reclamation Plant Sanitary Sewer System. The City's SSMPs were last updated in February 2017 as part of a required biennial internal audit.²¹ The SSMPs address the proper management, operation, and maintenance of all parts of the systems. The SSMP establishes design and performance standards for the sewer system; provides procedures for evaluating the system and providing capacity assurance; and establishes a performance standard to identify sewers in need of replacement or relief. The City's SSMP is in full compliance with the WDRs and meets applicable WDR objectives.²²

(h) *Los Angeles Municipal Code*

(i) *Los Angeles Green Building Code*

The City has been pursuing a number of green development initiatives intended to promote energy conservation and reductions in the amount of greenhouse gas emissions generated within the City. While these ordinances do not focus on the provision of sewer services, they do mandate the use of water conservation features in new developments. Examples of such water conservation features include, but are not limited to, low water shower heads, toilets, clothes washers and dishwashers. Because the flow through these fixtures is reduced, residual wastewater passing through is reduced, in turn reducing the demand for sewage conveyance and treatment.

The Los Angeles Municipal Code (LAMC) Chapter IX, Article 9, the Los Angeles Green Building Code (LA Green Building Code, Ordinance No. 181,480),²³ was adopted in April 2008 and provides standards and a mechanism for evaluating projects for their water conservation features during site plan review. In 2010, 2014, and 2016, the LA Green Building Code was amended to incorporate various provisions of the California Green Building Standards (CALGreen) Code. The LA Green Building Code includes mandatory requirements and elective measures pertaining to wastewater for three categories of buildings, the first of which applies to this Project: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alterations to residential and non-residential buildings.

²¹ City of Los Angeles, Department of Public Works, Department of Sanitation, Sewer System Management Plan, Hyperion Sanitary Sewer System, February 2017, <https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdey/~edisp/cnt012544.pdf>. Accessed May 23, 2018.

²² City of Los Angeles, Department of Public Works, Department of Sanitation, Sewer System Management Plan, Hyperion Sanitary Sewer System, February 2017, <https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdey/~edisp/cnt012544.pdf>. Overview. Accessed May 23, 2018.

²³ City of Los Angeles, Ordinance No. 181480, <https://www.ladbs.org/docs/default-source/publications/ordinances/l-a-green-building-code-ordinance-181480.pdf?sfvrsn=12>. Accessed May 23, 2018.

(ii) *Water Efficiency Requirements Ordinance*

LAMC Chapter XII, Article 5, the Water Efficiency Requirements Ordinance (Ordinance No. 180,822),²⁴ effective December 1, 2009, requires the installation of efficient water fixtures, appliances, and cooling towers in new buildings and renovation of plumbing in existing buildings, to minimize the effect of water shortages for City customers and enhance water supply sustainability.

(iii) *Sewer Capacity Availability Review, LAMC Section 64.15*

The LAMC includes regulations that require the City to assure available sewer capacity for new projects and to collect fees for improvements to the infrastructure system. LAMC Section 64.15 requires that the City perform a SCAR when an applicant seeks a sewer permit to connect a property to the City's sewer system, proposes additional discharge through their existing public sewer connection, or proposes a future sewer connection or future development that is anticipated to generate 10,000 gallons or more of sewage per day. A SCAR provides a preliminary assessment of the capacity of the existing municipal sewer system to safely convey a project's newly generated wastewater to the appropriate sewage treatment plant.

(iv) *Sewerage Facilities Charge, LAMC Sections 64.11.2 and 64.16.1*

LAMC Sections 64.11.2 and 64.16.1 require the payment of fees for new connections to the City's sewer system to assure the sufficiency of sewer infrastructure. New connections to the sewer system are assessed a Sewerage Facilities Charge. The rate structure for the Sewerage Facilities Charge is based upon wastewater flow strength as well as volume. The determination of wastewater flow strength for each applicable project is based on City guidelines for the average wastewater concentrations of two parameters, biological oxygen demand and suspended solids, for each type of land use. Sewerage Facilities Charge fees are deposited in the City's Sewer Construction and Maintenance Fund for sewer and sewage-related purposes, including, but not limited to, industrial waste control and water reclamation purposes.

(v) *Bureau of Engineering Special Order No. SO 06-0691*

The City establishes design criteria for sewer systems to assure that new infrastructure provides sewer capacity and operating characteristics to meet City standards (Bureau of Engineering Special Order No. SO 06-0691). Per the Special Order, lateral sewers, which are sewers 18 inches or less in diameter, must be designed for a planning period of 100 years. The Special Order also requires that sewers be designed so that the peak dry

²⁴ City of Los Angeles, Ordinance No. 180822, http://clkrep.lacity.org/online/docs/2009/09-0510ord_180822.pdf. Accessed May 23, 2018.

weather flow depth during their planning period does not exceed one-half of the pipe diameter (D) (i.e., depth-to-diameter ratio or d/D).²⁵

b) Existing Conditions

(1) Wastewater Generation

As discussed in Chapter II, *Project Description*, of this Draft EIR, the Project Site is currently developed with five existing commercial buildings (containing 35,651 square feet of area), 3,424 square feet of paved parking lot area, and 3,506 square feet of right-of-way and alley easement area. Under the existing baseline conditions, approximately 14,653 square feet of building area contain manufacturing uses, approximately 5,171 square feet contain retail uses and the remaining portions of the existing buildings are vacant. The estimated wastewater generation at the Project Site over a recent 8-year period is approximately 262 gallons per day (gpd).²⁶

(2) Wastewater Collection and Treatment

Wastewater in the City is collected and conveyed by three separate sanitary sewer systems owned and operated by LASAN. The largest of these, the Hyperion Sanitary Sewer System, encompasses the majority of the City and also accepts sewage from 29 other jurisdictions. The Hyperion Sanitary Sewer System is a network of approximately 6,117 miles of gravity-fed sewer laterals and mains, pressurized mains, pump stations, treatment plants, and outfalls in the Pacific Ocean.²⁷ Wastewater generated within Downtown Los Angeles, including from the Project Site, is conveyed through the Hyperion Sanitary Sewer System and treated at the HWRP. The Hyperion Sanitary Sewer System serves a total of 600 square miles in the City and within other jurisdictions outside the City boundaries. The HWRP is the City's largest wastewater treatment facility and provides preliminary, primary, and secondary treatment processes, and also treats flows bypassed from the DTWRP and LAGWRP.²⁸ The Hyperion Sanitary Sewer System includes treatment plants, outfalls, and numerous sewer connections and major interceptors. The current treatment capacity of the Hyperion Sanitary Sewer System is approximately 550

²⁵ City of Los Angeles Department of Public Works, Bureau of Engineering, Special Order No. 006-0691, Planning Period, Flow, and Design Criteria for Gravity Sanitary Sewers and Pumping Plants, effective June 6, 1991, <http://eng2.lacity.org/docs/sporders/1991/so00691.pdf>. Accessed May 10, 2018.

²⁶ The Project's Water Supply Assessment, Appendix P-2 of this Draft EIR, estimates the water consumption at the Project Site to be 291 gpd, based on LADWP billing data (annual average from 2010 to 2017). Wastewater generation typically approximates water demand less a small factor to account for water consumption/evaporation. Assuming a reduction factor of 10 percent of the 291 gpd, the wastewater generation would be approximately 262 gpd.

²⁷ City of Los Angeles Department of Public Works, Los Angeles Sanitation, Sewer System Management Plan, Hyperion Sanitary Sewer System, February 2017, <https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdew/~edisp/cnt012545.pdf>. Accessed July 31, 2018.

²⁸ City of Los Angeles Department of Public Works, Los Angeles Sanitation, Integrated Resource Plan, Section 7 Existing Treatment Facilities, <https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdew/~edisp/cnt010375.pdf>. Accessed July 31, 2018.

mgd, including 450 mgd at the HWRP, 80 mgd at the DTWRP, and 20 mgd at the LAGWRP.

The treatment plants remove pollutants from sewage, provide a source of recycled water, protect the marine and river environments, and protect public health. The plants provide one or more of the following forms of treatment: primary treatment (solids removal and conveyance of the resulting “sludge” to digesters); secondary treatment (aeration with bacteria, decomposition, reduction of nitrogen, and production of activated sludge for further clarification); tertiary treatment (removal of remaining solids); digestion (destruction of pathogens within solids in enclosed anaerobic tanks); and dewatering (separation of effluent from biosolids).²⁹ Treated effluent is discharged from the HWRP through an outfall pipe located five miles offshore in the Santa Monica Bay. Treated sludge is discharged through a separate outfall pipe located seven miles offshore.³⁰ HWRP effluent is required to meet the Los Angeles Regional Water Quality Control Board (LARWQCB) requirements for a recreational beneficial use, which imposes performance standards on water quality that are more stringent than the standards required under the Clean Water Act permit administered under the system’s National Pollution Discharge Elimination System (NPDES) permit for the City of Los Angeles (Order No. R4-2017-0045, General NPDES Permit CA0109991) (NPDES Permit).³¹

On average 275 million gallons of wastewater enters the HWRP on a dry weather day. Because the amount of wastewater entering HWRP can double on rainy days, the plant was designed to accommodate both dry and wet weather days with a maximum daily flow of 450 mgd and peak wet weather flow of 800 mgd.³²

²⁹ City of Los Angeles Department of Public Works, Los Angeles Sanitation, Water Reclamation Plants, Treatment Process, https://www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-tp?_adf.ctrl-state=v7m5gfj05_5&_afLoop=9651870216343293#!. Accessed October 11, 2018.

³⁰ City of Los Angeles Department of Public Works, Los Angeles Sanitation, Hyperion Water Reclamation Plant: Background, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-hwrp;jsessionid=OC5mKklrvGk47Jz3HOpAYVOFdk5GI_5gBLd4piCaPse1o7aFh2h!1291451969!-507278767?_afLoop=3349549090552117&_afWindowMode=0&_afWindowId=null&_adf.ctrl-state=eh7redhg_1#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D3349549090552117%26_afWindowMode%3D0%26_adf.ctrl-state%3Deh7redhg_5. Accessed July 18, 2018.

³¹ Los Angeles Regional Water Quality Control Board, Order No. R4-2017-0045, General NPDES Permit No. CA0109991, Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean. February 2, 2017, <https://www.epa.gov/sites/production/files/2017-09/documents/npdes-ca0109991-r4-2017-0045-hyperion-2017-02-02.pdf>. Accessed July 18, 2018.

³² City of Los Angeles Department of Public Works, Los Angeles Sanitation, Hyperion Water Reclamation Plant: Process—Treatment Process, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-hwrp;jsessionid=OC5mKklrvGk47Jz3HOpAYV_OfDk5GI_5gBLd4piCaPse1o7aFh2h!1291451969!-507278767?_afLoop=3349549090552117&_afWindowMode=0&_afWindowId=null&_adf.ctrl-state=eh7redhg_1#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D3349549090552117%26_afWindowMode%3D0%26_adf.ctrl-state%3Deh7redhg_5. Accessed July 7, 2018.

(3) Wastewater Facilities Serving the Project Site

The Project's *Utility Report*, Appendix P-1, below, includes service line mapping from NavigateLA.³³ According to NavigateLA, there is an existing 14-inch vitrified clay pipe (VCP) main line in Olive Street with a pipe identification number of 51611227/51610084A, which would serve the Project Site. The City of Los Angeles' sewer wye maps indicate that existing sewer wye connections to the Olive Street main-line are available along Olive Street. However, the availability of these wyes for Project connection would need to be confirmed during final Project design. No existing sewer main lines are found in 11th Street. A map section from NavigateLA showing the existing sewer lines is attached to the *Utility Report* and included as Exhibit 1.

3. Project Impacts

a) Thresholds of Significance

In assessing impacts related to wastewater in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the thresholds of significance. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to wastewater if it would:

- a) Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects; or***
- b) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.***

The L.A. CEQA Thresholds Guide identifies the following criteria to evaluate wastewater:

- The project would cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or
- The project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the WFP or General Plan and its elements.

³³ Navigate Los Angeles is a web-based mapping application developed by the City of Los Angeles that provides maps and reports using city data, as an aid in researching infrastructure and zoning for properties in the City.

b) Methodology

The analysis of impacts on wastewater services is based in large part on a SCAR that was prepared by the Los Angeles Bureau of Engineering. The SCAR is included in the Project's *Utility Report* in Appendix P-1 to this Draft EIR. The SCAR estimates the amount of wastewater generation capacity of the existing sewer system facilities that would serve the Project Site and the ability of the system to accommodate the additional flows. The preparation of a SCAR that evaluates the capacity of the wastewater conveyance system includes, but is not limited to, the following steps:

1. Research and trace sewer flow levels upstream and downstream of the point of connection;
2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary;
3. Review recent gauging data and in some cases closed circuit TV (CCTV) inspection videos;
4. Perform gauging and CCTV inspection if recent data is not available;
5. Research the project location area for other recently approved SCARs to evaluate the cumulative impact of all known SCARs on the sewer system;
6. Calculate the impact of the proposed additional sewage discharge on the existing sewer system as it will be impacted from the approved SCARs. This includes tracing the cumulative impacts of all known SCARs, along with the subject SCAR, downstream to ensure sufficient capacity exist throughout the system; and
7. Correspond with the applicant for additional information and project and clarification as necessary;
8. Work with the applicant to find alternative sewer connection points and solutions if sufficient capacity does not exist at the desired point to connection.

The Project's estimated wastewater generation and projected average dry water flow is also compared with the available treatment capacity within the Hyperion Sanitary Sewer System and the HWRP. Treatment capacity data is based on information presented in the 2006 IRP, the One Water LA Plan, and LASAN website data.

c) Project Characteristics

As described in Section IV.O.2, *Water Supply*, of this Draft EIR, the Project includes Project Design Feature PDF-WS-1, Water Conservation Features. These conservation features were proposed by the Applicant and accepted by LADWP as commitments to provide conservation features that go beyond the levels otherwise required by regulations. These would reduce the amount of water used for Project operations and

therefore would reduce the amount of pass-through wastewater that would be generated by Project activities.³⁴

WS-PDF- 1: Water Conservation Features:

The Project shall implement the following water conservation measures that are in addition to those required by codes and ordinances:

- High Efficiency Toilets with a flush volume of 1 gallon per flush, or less
- Urinal flush volumes of 1.0 gallons per minute, or less
- Showerheads with a flow rate of 1.2 gallons per minute, or less
- ENERGY STAR Certified Residential Clothes Washers - Front-loading or Top-loading with Integrated Water Factor of 3.2 or less and capacity of 4.5 cubic feet
- ENERGY STAR Certified Residential Dishwashers - compact with 3 gallons/cycle or less
- Domestic Water Heating System located close proximity to point(s) of use
- Individual metering and billing for water use for every residential dwelling unit and commercial unit
- Tankless and on-demand Water Heaters
- Water-Saving Pool Filter
- Pool/Spa recirculating filtration equipment
- Pool splash troughs around the perimeter that drain back into the pool
- Install a meter on the pool make-up line so water use can be monitored and leaks can be identified and repaired
- Reuse pool backwash for irrigation
- Leak Detection System for swimming pools and Jacuzzi
- Drip/Subsurface Irrigation (Micro-Irrigation)
- Micro-Spray
- Proper Hydro-zoning/Zoned Irrigation - (groups, plants with similar water requirements together)
- Artificial Turf
- Drought Tolerant Plants - approximately 70 percent of landscaping

³⁴ The entire list of water conservation features is included here for consistency with the presentation of the PDFs in other sections of the Draft EIR. Most of these items would result in reduced pass-through wastewater generation. A few, e.g. a leak detection system for swimming pools or drip irrigation for landscaping would reduce water consumption without necessarily reducing output to the sanitary sewer system.

- Water Conserving turf - approximately 30 percent of total landscaping

Additional Project Design Features to reduce wastewater generation are not proposed.

d) Analysis of Project Impacts

Threshold a) *Would the Project require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects? Less than Significant Impact.*

(1) Construction

Project construction activities would generate a small amount of wastewater associated with Project construction workers. As such, wastewater generation would be temporary, and would not contribute wastewater flows to the local wastewater collection system. Portable restrooms would be provided and maintained on the Project Site for construction workers and would be serviced by a private company, in accordance with the NPDES General Construction Permit. The resultant waste would be disposed of off-site by a licensed waste hauler, and in accordance with applicable regulations, it is expected that the wastewater generated during Project construction would be treated within the Hyperion Sanitary Sewer System. **Therefore, relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects would not be required. Project construction impacts on wastewater treatment facilities would be less than significant, and no mitigation measures are required.**

(2) Operation

(a) Wastewater Generation

As indicated in **Table IV.O.1-2, *Estimated Project Wastewater Generation***, the Project would result in an estimated wastewater generation of approximately 129,004 gpd.³⁵ This estimate, prepared by the Bureau of Engineering, is a conservative estimate, as it does not account for water conservation features that would reduce the amount of the Project's water usage and therefore conveyance into the wastewater distribution and treatment system. The wastewater generation from existing uses, 865 gpd, as calculated above, is not subtracted from the total estimated wastewater generation providing an even more conservative estimate for the Project. The Project's water conservation features and potential reductions in water consumption are discussed further in Section IV.O.2, *Water Supply*, of this Draft EIR.

³⁵ Prepared by the Bureau of Engineering and included in the Project's Utility Report, Included as Appendix P-1 of this Draft EIR

**TABLE IV.O.1-2
ESTIMATED PROJECT WASTEWATER GENERATION**

Type of Use^a	Quantity	Generation Factor (gpd)^a	ADWF Wastewater Generation (gpd)
Residential – Studio	112 units	75/unit	8,400
Residential – 1 bedroom	366 units	110/unit	40,260
Residential – 2 bedroom	220 units	150/unit	33,000
Residential – 3 bedroom	96 units	190/unit	18,240
Restaurant- Full Service	500 seats	30/seat	15,000
Rental Office	1,236 sf	120/kgf	148
Tenant - Dog Wash ^b	1053 sf	425/kgf	448
Swimming Pool (spa/Jacuzzi)	1	8,658 gpd	8,659
Gymnasium- Basketball, Volleyball	10,680 sf	200/kgf	2,136
Other Tenant Amenities ^b	54,271 sf	50/kgf	2,714
Total			129,004

Abbreviations: gpd – gallons per day, sf = square feet, ksf = 1,000 square feet

^a The average daily flow based on the Bureau of Sanitation sewage generation factors.

^b The sewage generation factors manual does not have uses that precisely match the Project's proposed tenant dog wash, and generalized amenity program with such uses as tenant gathering areas. The SCAR prepared for the Project used "Beauty Parlor" as conservative stand-in value for dog wash, and "Commercial Use" as representative of the Tenant Amenities.

SOURCE: City of Los Angeles Bureau of Engineering, SCAR, which is included in the Project's *Utility Report*, Appendix P-1 of this Draft EIR.

(b) Wastewater Collection and Treatment

Various factors, including future development of new treatment plants, upgrades and improvements to existing treatment capacity, development of new technologies, etc., will ultimately determine the future available capacity of the Hyperion Sanitary Sewer System. As discussed above, the IRP identifies a Hyperion Sanitary Sewer System capacity of 550 mgd; and identifies projects to potentially increase the capacity to 570 mgd. As also discussed above, increases in demand for wastewater treatment are less than what was anticipated and planned for in the IRP, and some identified upgrade projects have been postponed as they are not currently needed to meet demand.³⁶

³⁶ Water Integrated Resources Plan (IRP), Annual Stakeholders Meeting, City of Los Angeles, Department of Public Works, Bureau of Sanitation and Department of Water and Power, June 13, 2013. <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M211.pdf> Accessed July 18, 2018.

Recent data on the HWRP website indicates that on average 275 million gallons of wastewater enters the HWRP on a dry weather day.³⁷ The One Water LA Plan updates the current estimate to 250 mgd and provides a 2040 estimated value of 283 mgd.³⁸ Because the amount of wastewater entering HWRP can double on rainy days, the plant was designed to accommodate both dry and wet weather days with a maximum daily flow of 450 mgd and peak wet weather flow of 800 mgd.³⁹ Accordingly, there is a residual dry weather day capacity of 175 mgd, or 39 percent of the total. There is also a peak weather flow remaining capacity of 250 mgd, 31 percent of the total, according to the SCAR report prepared by the Bureau of Engineering and included in the Project's Utility Report. Taking into account the 2040 estimate of 283 mgd in the One Water LA Plan the dry weather capacity would be 167 mgd. As indicated in Table IV.O.1-2, Estimated Project Wastewater Generation, the Project is conservatively estimated to generate 129,004 gpd of wastewater, or approximately 0.074 mgd of the 175 mgd remaining dry weather day capacity. It is also approximately 0.05 percent of the remaining 250 mgd wet weather flow capacity. Therefore, the Project would not require the construction or expansion of wastewater treatment facilities. With the 2040 estimated residual capacity identified in One Water LA Plan for the HWRP of 167 mgd, the Project wastewater generation would be approximately 0.08 percent of that amount.

(c) *Wastewater Facilities and Infrastructure*

Proper treatment of wastewater requires the operation of treatment plants as well as a large conveyance system necessary to convey wastewater to the treatment plant. As discussed under Wastewater Collection and Treatment above, the Hyperion Sanitary Sewer System, i.e., the collective sewer system, has the capacity to accommodate the Project within its current capacity. Further, the One Water LA Plan provides facilities planning to meet future needs through 2040.

At the local level, and adjacent to the Project Site, the Project would include on-site infrastructure to collect Project generated wastewater and convey it to the existing 14-inch vitrified clay pipe main line in Olive Street, as described in the existing setting section above. Subject to final Project design requirements, the connections to the main-line

Detail pertaining to the revised flow projections is included at pages 1-6 thru 1-8 of the Final Documents presentation.

³⁷ City of Los Angeles Department of Public Works, LA Sanitation, Hyperion Water Reclamation Plant: Process Treatment Process, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=gnwuevedp_5&_afLoop=10865595208310832#! Accessed July 2018.

³⁸ City of Los Angeles, One Water Los Angeles, 2018, Table 7.4, page 7-14, and Table 7.7, page 727, respectively, https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf. Accessed November 2, 2018.

³⁹ City of Los Angeles Department of Public Works, Los Angeles Sanitation, Hyperion Water Reclamation Plant: Process Treatment Process, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=gnwuevedp_5&_afLoop=10865595208310832#! Accessed July 2018.

would use existing sewer wye connections to the main-line or add new connection facilities as required by the City, depending on the size of the available wyes.

Off-site improvements, should they be required, would involve minor construction activities immediately adjacent to the Project Site. A small amount of trenching would be followed by connecting the underground sewerage, and backfilling the excavation. The Project would comply with the Mayor's Executive Directive No. 2 entitled "Rush Hour Construction on City Streets" by conducting the trenching during non-peak hours, which is defined as being between 9:00 A.M. and 3:30 P.M.⁴⁰ Such construction work would be short term with negligible environmental impact. The SCAR prepared by the Bureau of Engineering and included in the Project's *Utility Report* indicates that the existing main line in Olive Street has sufficient capacity to accommodate the Project and it approves the Project for service, taking into account the analysis factors⁴¹ identified in Subsection 3.b, *Methodology*, discussion above. Potential improvements that may be required for sewer connections, if any, would be minor, and would not require notable excavation or construction of new infrastructure that would have significant environmental impacts.

As demonstrated in the above analyses regarding the Hyperion Sanitary Sewer System, as well as the local infrastructure, the Project would not require the construction of new or improved off-site/main-line infrastructure for wastewater treatment or conveyance of wastewater at the Project Site. **Therefore, the Project would not require or result in relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. No mitigation measures are required.**

Threshold c) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments? Less than Significant Impact.

(1) Construction

Project construction activities would generate a small amount of wastewater that would be accommodated by portable restrooms serviced by a private company. The resultant waste would be disposed of off-site by a licensed waste hauler, and it is expected that the wastewater generated during Project construction would be treated within the Hyperion

⁴⁰ City of Los Angeles. Department of Public Works, Bureau of Engineering, Special Order No. 001-0406, Guidelines Pursuant to Mayor's Executive Directive No. 2 – Rush Hour Construction on City Streets, April 14, 2005, https://partners.skanska.com/usa/projects/098010/Q/C0980%20Conformed%20Contract%20Documents/7_All_Other_Project_Definition_Docs/Local_Jurisdictions/LABOE_Rush_Hr_Constr_Special_Order_001-0406_04.14.2006.pdf. Accessed August 7, 2019

⁴¹ Prepared by the Bureau of Engineering and included in the Project's Utility Report, Included as Appendix P-1 of this Draft EIR

Sanitary Sewer System, which, as set forth above, has sufficient capacity to accommodate the wastewater.

(2) Operation

As cited above, LASAN has completed a SCAR evaluation of the Project's demand for wastewater treatment concluded that the Project could be served by the existing infrastructure system. Further, the analysis above indicates that the HWRP has sufficient capacity to accommodate the Project. **Therefore, the wastewater treatment provider has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments, and impacts would be less than significant. No mitigation measures are required.**

e) Cumulative Impacts

Cumulative impacts regarding the provision of wastewater services occurs due to all new development occurring within the boundaries of the Hyperion Sanitary Sewer System, and for the most part the service area of the HWRP. The Project list of related projects is identified in Chapter III, *General Description of Environmental Setting*, of this Draft EIR. Chapter III identifies 195 related projects, of which four are infrastructure projects. This development is a component of development that is taken into account in SCAG projections that are used as the basis of planning for the provision of wastewater generation.

(1) Construction

As was described for the Project, construction activities from related projects, would each generate a small amount of wastewater associated with their respective construction workers. Such wastewater generation would be temporary. The construction wastewater generation would not contribute wastewater flows to their respective local wastewater collection system. Portable restrooms would be provided and maintained on the development sites for construction workers and would be serviced by a private company. The resultant wastewater would be disposed of off-site by a licensed waste hauler, and would likely be transported to the Hyperion Sanitary Sewer System. Cumulative wastewater from construction projects would not have impacts on local sewer systems, and would generate only a nominal increase in wastewater flows requiring treatment at the HWRP. **Therefore, conveyance and treatment of wastewater generated by cumulative development would not require the construction or expansion of new wastewater facilities. In addition, wastewater treatment requirements of the LARWQCB would not be exceeded by construction of related projects, and sufficient capacity to treat wastewater from related projects would be available. Cumulative impacts on wastewater treatment facilities would be less than significant, and no mitigation measures are required.**

(2) Operation

(a) Wastewater Generation

The related projects would cumulatively contribute, in conjunction with the proposed Project, to wastewater generation in the general vicinity of the Project area. As shown in **Table IV.O.1-3, *Estimated Cumulative Wastewater Generation***, the estimated wastewater associated with the related projects and the Project would total approximately 10.9 mgd.⁴² As was the case for the Project, this estimate is extremely conservative as it does not take into account regulatory and voluntary water conservation features incorporated into all large new developments in the City that would reduce wastewater generation; and also does not take into account wastewater generated by existing development that would be replaced by the related projects.

**TABLE IV.O.1-3
ESTIMATED CUMULATIVE WASTEWATER GENERATION**

Land Uses	Quantity ^a	Unit	Generation Factor ^b	ADWF Wastewater Generation (gpd)
Residential	49,688	du	150 gpd/du	7,453,200
Office	7,217	1,000 sf	120 gpd/ksf	866,040
Retail	3,815	1,000 sf	25 gpd/ksf	95,375
Restaurant (677,000 sf)	27,080	seats	30 gpd/seat	812,400
Hotel	9,242	rooms	120 gpd/room	1,109,040
Schools	27,165	students	11 gpd/student	298,815
Other ^c	896	1,000 sf	120 gpd/ksf	107,520
Total (without Project)	-- --		-- --	10,742,390
Project (net increase)	-- --		-- --	129,004
Total (with Project)	-- --		-- --	10,871,394

Abbreviations: du = dwelling units; sf = square feet; rms = rooms; ksf = thousand square feet; ac = acres; stu = students, ADWF = Average Dry Weather Flow

^a The calculation of the development amounts for the related projects is provided in Appendix L of this Draft EIR.

^b Wastewater generation factors are from LADPW's 2012 Sewage Facilities Charge - Sewage Generation Factors for Residential and Commercial Categories.

^c The other uses include small amounts of varied activity included such uses as production studio area and conference space. The generation rate of 120gpd/1,000 sf feet is the office rate. This is a conservative rate as office uses result in higher wastewater rates than typical mixed uses found in the Downtown area.

SOURCE: ESA, 2018.

⁴² The calculation of cumulative development is based on the list of related projects included Table III- 1 of Chapter III, *General Description of Environmental Setting*, of this Draft EIR. The calculation of the development amounts was prepared for the analysis of Population and Housing in Section IV.K of this Draft EIR, and is included in Appendix L.

(b) *Wastewater Treatment*

As discussed above, the IRP identifies a Hyperion Sanitary Sewer System capacity of 550 mgd, and identifies sewerage improvement projects to potentially increase the capacity to 570 mgd. The anticipated 2020 daily inflows to HWRP estimated in the 2006 IRP of 511.5 mgd would allow for a residual capacity to meet greater than expected demand for service.

As also discussed above, increases in demand for wastewater treatment are presently less than what was anticipated and planned for in the IRP, resulting in some identified upgrade projects having been postponed as they were not needed to meet the identified demand for services.

Like the Project, the related projects would have their wastewater conveyed to the HWRP. As described in the analysis of Project impacts above, the HWRP currently has a residual dry weather day capacity of 175 mgd and a residual peak wet weather flow capacity of 250 mgd.⁴³

The conservatively estimated cumulative wastewater generation from the Project and related projects as shown in Table IV.O.1-3 is 10.9 mgd. The 10.9 mgd of wastewater generation is approximately 6.22 percent and 4.36 percent of the dry weather day and wet weather day excess capacities, respectively.⁴⁴ Taking into account the 2040 estimates in the One Water LA Plan, with a residual the dry weather capacity of 167 mgd, the Project and related projects would represent 6.53 percent of the residual capacity.

The above analysis illustrates the ability of the City to accommodate cumulative demand, inclusive of the related projects, based on information in the 2006 IRP and its 5-year reviews. Moving forward, the City is replacing this planning process with the One Water LA 2040 Plan that extended the horizon year for meeting cumulative demand within the entire service area from 2020 to 2040. This plan builds upon the provisions of the City's Water IRP. The One Water LA Plan creates a collaborative approach to managing the City's future water, wastewater treatment, and stormwater needs with the goal of yielding sustainable, long-term water supplies for Los Angeles to ensure greater resiliency to drought conditions and climate change. As noted above, the One Water LA Plan includes a Wastewater Facilities Plan and identifies infrastructure updates to meet future needs.⁴⁵

⁴³ Calculations based on information provided in the City of Los Angeles Department of Public Works, LA Sanitation, Hyperion Water Reclamation Plant: Process—Treatment Process, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-hwrp.jsessionid=OC5mKklrvGk47Jz3HOpaYV_OfDk5Gl_5gBLd4piCaPse1o7aFh2h!1291451969!-507278767?_afLoop=3349549090552117&_afWindowMode=0&_afWindowId=null&_adf.ctrl-state=eh7redhg_1#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D3349549090552117%26_afWindowMode%3D0%26_adf.ctrl-state%3Deh7redhg_5. Accessed July 7, 2018

⁴⁴ 10.9 mgd/175 mgd = 6.22 percent of the Project and related projects' dry weather day excess capacity and 10.9 mgd/250 mgd = 4.36 percent of the Project and related projects' wet weather day excess capacity.

⁴⁵ City of Los Angeles, One Water Los Angeles, 2018, Table 7.3, page 7-13, https://www.lacitysan.org/cs/groups/sg_owla/documents/document/y250/mdi2/~edisp/cnt026188.pdf. Accessed November 2, 2018.

As previously stated, HWRP effluent is required to meet LARWQCB requirements for a recreational beneficial use, which are more stringent than the standards imposed by the NPDES Permit. Implementation of the IRP, upgrades in the advanced treatment processes at the Hyperion Water Reclamation Plant, and continual monitoring by the City of Los Angeles Environmental Monitoring Division would ensure that effluent discharged by the related projects in conjunction with the Project is within the HWRP's applicable limits.

Thus, the additional wastewater flows from the Project plus related projects would not exceed the future scheduled capacity of the HWRP and therefore, would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

(c) *Wastewater Facilities and Infrastructure*

As described above, the analysis of treatment capacity is based SCAG population projections that account cumulative growth from all development occurring within the service area, which includes growth such as that represented in the Project's related project list and subsequent monitoring by the City to continually assess the volume of wastewater flows within the system and the system's existing capacity. The analysis shows that sufficient treatment capacity is available to accommodate cumulative growth, and new facilities are not required to specifically meet the needs of the Project and related projects.

At the local level, the Project, with the related projects, would place added demand on the local sewer facilities/infrastructure. Such potential increase in demand that would require upgrades to local facilities is addressed through the City's process for evaluating and assigning available sewer capacity. As described further in the Methodology section above, the City's analysis is based on a cumulative methodology that takes into account other development occurring in the Project vicinity.

The SCAR analysis of Project impacts on local infrastructure is included in the Project's Utility Report and takes into account related projects that are recently completed, under construction and under environmental review, which would require SCARs as components of their implementation procedures. The SCAR concluded that the Project would not require off-site facilities/infrastructure beyond the connections to the adjacent infrastructure to meet its needs and would not add a cumulatively considerable contribution to the need for new facilities in the Downtown area that would have impacts on the environment.

Further, subsequent to the preparation of the SCAR, the Bureau of Engineering provided a further analysis regarding cumulative wastewater flow that has been incorporated into the Project's *Utility Report* to account for two new related projects and a revised development program for a third related project that were added to the Related Projects list presented in Chapter III, Table III-1, subsequent to the completion of the SCAR. These related projects, Related Project No. 18, Related Project No. 190 and Related Project

191, are located across from, caddy-corner to, and just up street from the Project Site on 11th Street. These projects would add up to 1,777 new residential units and small amounts of commercial development that could, under the most conservative assumptions, contribute with the Project to cumulative wastewater flow in the 14 inch main-line in Olive Street that also serves the Project Site.

The subsequent analysis to address the additional development evaluated the gravity sewer pipeline capacity based on its d/D ratio (i.e., the maximum depth of flow to the diameter of the pipe) for a 14-inch diameter pipe. The assumed maximum capacity of such a pipe-line is pipeline is 70 percent. The analysis shows that the d/D of the sewer main with the Project would be approximately 45 percent, which is well below the assumed maximum capacity of 70 percent. Assuming that all of the wastewater from the three additional projects would generate wastewater to the same pipeline, a conservative assumption, the buildout of all four proposed projects would result in a d/D of approximately 50 percent, which again is well below the assumed maximum capacity of the main. The existing sewer main can accommodate the Project and the three related projects without upgrades to the main line.⁴⁶ As with the Project, the related projects would be subject to the provisions of the LAMC requiring provision of on-site infrastructure, improvements to connect project wastewater into the local conveyance infrastructure, and payment of fees for future sewerage replacement and/or relief improvements. The City performs this code-required review for new development projects to ensure that sewer capacity is available prior to the issuance of building permits.

Furthermore, similar to the Project, each related project would be required to comply with applicable water conservation programs, including the Los Angeles Green Building Code, which would reduce wastewater generation.

(d) Conclusion

The Hyperion Sanitary Sewer System currently meets applicable water quality standards as set forth by its NPDES Permit.⁴⁷ Furthermore, the HWRP has sufficient capacity to provide treatment for the wastewater generated by the cumulative development as reflected in the SCAR prepared by Bureau of Engineering, which concluded that the Project, in addition to the related projects, can be served by existing local infrastructure. **Therefore, the cumulative development would not exceed the wastewater treatment requirements of the LARQCB; would not require the construction of wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and the City would be able to treat the Project's projected wastewater flows in addition to the City's existing**

⁴⁶ Analysis prepared by the Bureau of Engineering and included in Section 1.2, of the Project's Utility Report, Appendix P-1 of this Draft EIR.

⁴⁷ City of Los Angeles, Department of Public Works, Department of Sanitation, Sewer System Management Plan, Hyperion Sanitary Sewer System, February 2017, Overview, <https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdey/~edisp/cnt012544.pdf>. Accessed May 23, 2018.

commitments. Cumulative impacts would be less than significant. No mitigation measures are required.

f) Mitigation Measures

Project-level and cumulative impacts related to Wastewater would be less than significant and no mitigation measures are required.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

IV.O.2 Water Supply

1. Introduction

This section evaluates potential Project impacts on water supply and whether the Project would require or result in the construction of new water treatment facilities, including conveyance infrastructure, the construction of which would cause significant environmental effects. The Los Angeles Department of Water and Power (LADWP) is the water supplier for the Project Site. This section describes LADWP's available water supplies, current and projected regional water demand, municipal water infrastructure serving the Project Site, and the adequacy of water supplies and infrastructure to meet Project demand. Project consistency with relevant plans and regulations is also assessed. For a discussion of water availability for firefighting, see Section IV.L.1, *Fire Protection*, of this Draft EIR.

The data and conclusions in this section regarding the availability of water supply to serve the Project are based on a *Water Supply Assessment* (WSA) prepared for the Project and adopted by LADWP and included in Appendix P-2 of this Draft EIR, along with a copy of Resolution No. 018214 approving the WSA. Additional technical information used in the analysis is based on a *Civil Engineering Report* (Utility Report) prepared for the Project by David Evans Associates and included in Appendix P-1.

2. Environmental Setting

a) Regulatory Framework

(1) State

(a) *California Urban Water Management Plan Act* (*California Water Code Sections 10610-10656*)

The California Urban Water Management Planning Act (California Water Code [CWC] Division 6, Part 2.6, Sections 10610-10656) addresses several state policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires Urban Water Suppliers to develop Urban Water Management Plans (UWMPs) every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years. Urban Water Suppliers are defined as water suppliers that either serve more than 3,000 customers or provide more than 3,000 acre feet per year (afy) of water to customers.

(b) *Senate Bill 610 (California Water Code Section 10910 et seq.); Senate Bill 221 (California Water Code Sections 11010, 65867.5, 66455.3 and 66473.7); and Senate Bill 7 (California Water Code Section 10608)*

Two of the state laws addressing the assessment of water supply necessary to serve large-scale development projects, Senate Bill (SB) 610 and SB 221, became effective January 1, 2002. SB 610, codified in CWC Section 10910 et seq., specifies the requirements for WSAs and their role in the California Environmental Quality Act (CEQA) process, and defines the role UWMPs play in the WSA process. SB 610 requires that, for projects subject to CEQA that meet specific size criteria, the water supplier prepare WSAs that determine whether the water supplier has sufficient water resources to serve the projected water demands associated with the projects. SB 610 provides specific guidance regarding how future supplies are to be calculated in the WSAs where an applicable UWMP has been prepared. Specifically, a WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' actual water deliveries received by the public water system. In addition, the WSA must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions. In accordance with SB 610, projects for which a WSA must be prepared are those subject to CEQA that meet any of the following criteria:

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use projects that include one or more of the projects specified in this subdivision; or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project.

The WSA must be approved by the public water supplier serving the project at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

In addition, under SB 610, a water supplier responsible for the preparation and periodic updating of an UWMP must describe the water supply projects and programs that may be undertaken to meet the total project water use of the service area. If groundwater is identified as a source of water available to the supplier, the following additional

information must be included in the UWMP: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; (3) a description and analysis of groundwater use in the past 5 years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

SB 7, enacted on November 10, 2009, mandates new water conservation goals for UWMPs, requiring Urban Water Suppliers to achieve a 20 percent per capita water consumption reduction by the year 2020 statewide, as described in the “20 x 2020” State Water Conservation Plan.¹ As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, which requirements in turn must be taken into consideration in preparing and adopting WSAs under SB 610.

SB 221 also addresses water supply in the land use planning process for large residential subdivision projects. However, unlike SB 610 WSAs, which are prepared at the beginning of a planning process, the SB 221-required Water Supply Verification (WSV) is prepared at the end of the planning process for such projects. Under SB 221, a water supplier must prepare and adopt a WSV indicating sufficient water supply is available to serve a proposed subdivision, or the local agency must make a specific finding that sufficient water supplies are or will be available prior to completion of a project, as part of the conditions for the approval of a final subdivision map. SB 221 specifically applies to residential subdivisions of 500 units or more. However, Government Code Section 66473.7(i) exempts “...any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses; or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses; or housing projects that are exclusively for very low and low-income households.”

(c) *California Code of Regulations*

(i) *Title 20*

Title 20, Section 1605.3 (h) and 1505(i) of the California Code of Regulations (CCR) establishes applicable State efficiency standards (i.e., maximum flow rates) for plumbing fittings and fixtures, including fixtures such as showerheads, lavatory faucets and water closets (toilets). Among the standards, the maximum flow rate for showerheads manufactured between July 1, 2016 and prior to July 1, 2018 is 2.0 gallons per minute (gpm) at 80 pounds per square inch (psi); manufactured on or after July 1, 2018 is 1.8 gpm at 80 psi; and lavatory faucets manufactured after July 1, 2016 is 1.2 gpm at 60 psi.

¹ California State Water Resources Control Board, 20 x 2020 Water Conservation Plan, February 2010, http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/docs/20x2020plan.pdf. Accessed May 9, 2018.

The standard for toilets sold or offered for sale on or after January 1, 2016 is 1.28 gallons per flush.²

(ii) Title 24, Part 11

Part 11 of Title 24, the title that regulates the design and construction of buildings, establishes the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or a positive environmental impact and encouraging sustainable construction practices in the following categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The CALGreen Code includes both mandatory measures as well as voluntary measures. The mandatory measures establish minimum baselines that must be met in order for a building to be approved. The mandatory measures for water conservation provide limits for fixture flow rates, which are the same as those for the Title 20 efficiency standards listed above. The voluntary measures can be adopted by local jurisdictions for greater efficiency.

(iii) Title 24, Part, 5

Title 24, Part 5 of the California Code of Regulations, establishes the California Plumbing Code. The California Plumbing Code sets forth efficiency standards (i.e., maximum flow rates) for all new federally-regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. The 2016 California Plumbing Code, which is based on the 2015 Uniform Plumbing Code, has been published by the California Building Standards Commission and went into effect on January 1, 2017.

(iv) Emergency Declaration and Executive Orders B-29-15, B-36-15, B-37-16, and B-40-17

In response to California's drought conditions, on January 17, 2014, Governor Brown declared a State of Drought Emergency and directed state officials to take numerous necessary actions with local Urban Water Suppliers and municipalities to reduce the impacts of the ongoing drought conditions that had been occurring in California since approximately 2009.³ Subsequently, four Executive Orders were issued between April 2015 to April 2017 to address changing drought conditions and provide guidance for addressing the drought conditions.

Executive Order B-29-15 (April 2015) imposed a mandatory 25 percent statewide water reduction on potable water use by Urban Water Suppliers. It prioritized water

² California Code of Regulations, Title 20, Section 1605.3(h), [https://govt.westlaw.com/calregs/Document/IEEDE2D64EF7B4F168C0E85379828A8C2?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)&bhcp=1](https://govt.westlaw.com/calregs/Document/IEEDE2D64EF7B4F168C0E85379828A8C2?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default)&bhcp=1). Accessed July 19, 2018.

³ State of California, Office of Governor Edmund G. Brown, Jr., Governor Brown Declares Drought State of Emergency, January 17, 2014, <http://gov.ca.gov/news.php?id=18368>. Accessed May 1, 2018.

infrastructure projects, incentivized water efficiencies, and streamlined permitting with new approval processes for water transfers and emergency drinking water projects. Executive Order B-36-15 (November 2015) called for additional actions to build on the state's response to record dry conditions and assisted recovery efforts from devastating wildfires; and Executive Order B-37-16 (May 2016) continued water use restrictions from Executive Order B-29-15 as drought conditions continued to persist. Executive Order B-37-16 called for long-term improvements to local drought preparation across the state, and directed the California State Water Resources Control Board (SWRCB) to develop proposed emergency water restrictions for 2017 if the drought persists.⁴

In May 2016, SWRCB adopted a revised emergency water conservation regulation, effective June 2016 through at least February 2017, which rescinded numeric reduction targets for Urban Water Suppliers, instead requiring locally developed conservation standards based upon each agency's specific circumstances.⁵

Finally, on April 7, 2017, Executive Order B-40-17 was issued to formally end the drought emergency and lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. In response to Executive Order B-40-17, on April 26, 2017, the SWRCB partially repealed the emergency regulation in regard to water supply stress test requirements and remaining mandatory conservation standards for urban water suppliers.^{6,7} The order also rescinded two drought-related emergency proclamations and four drought-related executive orders. Cities and water districts throughout the state are required to continue reporting their water use each month. Executive Order B-40-17 continued the ban on wasteful practices, including hosing off sidewalks and running sprinklers when it rains.⁸

(v) *California Water Plan*

Required by the CWC Section 10005(a), the California Water Plan is the state's strategic plan for managing and developing water resources statewide for current and future generations.⁹ It provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders,

⁴ State of California, Office of Governor Edmund G. Brown, Jr., Governor Brown Issues Order to Continue Water Savings as Drought Persists, May 9, 2016, <https://www.gov.ca.gov/news.php?id=19408>.

⁵ State of California Office of Administrative Law, Notice of Approval of Emergency Regulatory Action, State Water Resources Control Board, Title 23, May 31, 2016, http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/emergency_reg/oal_approved_reg053116.pdf. Accessed May 1, 2018

⁶ California State Water Resources Control Board, Emergency Conservation Regulation, 2017, <https://www.waterboards.ca.gov/waterissues/programs/conservationportal/emergencyregulation.html>. Accessed July 20, 2018.

⁷ State Water Resources Control Board, Resolution No. 2017-0024, https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/rs2017_0024.pdf. Accessed July 20, 2018.

⁸ Los Angeles Department of Water and Power, Water Supply Assessment, Appendix P-2 of this Draft EIR, page 13.

⁹ California Department of Water Resources, California Water Plan, <https://water.ca.gov/Programs/California-Water-Plan>. Accessed July 23, 2018.

and the public to develop findings and recommendations and make informed decisions for California's water future.

The plan, updated every five years, presents the status and trends of California's water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The Water Plan also evaluates different combinations of regional and statewide resource management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. The evaluations and assessments performed for the plan help identify effective actions and policies for meeting California's resource management objectives in the near term and for several decades to come.

In July 2019, DWR released the Final 2018 Update to the California Water Plan¹⁰. The document provides recommended actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and decision-makers to overcome the State's most pressing water resource challenges. It reaffirms State government's unique role and commitment to sustainable, equitable, long-term water resource management; and introduces implementation tools to inform sound decision-making. The 2018 Update recommends significant additional investment in infrastructure and ecosystem improvements to overcome challenges to sustainability; and it recommends actions to resolve systemic and institutional issues that contribute to many of the state's water challenges.¹¹

(vi) *California Water Action Plan*

The California Water Action Plan is a roadmap for the State's journey towards sustainable water management. The first California Water Action Plan was released in January 2014 under Governor Jerry Brown's administration.¹² The California Water Action Plan discusses the challenges to water in California: uncertain water supplies, water scarcity/drought, declining groundwater supplies, poor water quality, declining native fish species and loss of wildlife habitat, floods, supply disruptions, and population growth and climate change further increasing the severity of these risks.¹³ Ten actions are listed in

¹⁰ California Department of Water Resources, <https://water.ca.gov/News/News-Releases/2019/July-19/Final-Water-Plan-Update-2018>. Accessed August 29, 2019.

¹¹ California Department of Water Resources, California Water Plan Update 2018, Executive Summary, pages ES-1 to ES-2, <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2018/PRD/California-Water-Plan-Update-2018-PRD-Executive-Summary.pdf>. Accessed, March 14, 2019.

¹² California Natural Resources Agency, California Water Action Plan, http://resources.ca.gov/california_water_action_plan/. Accessed July 23, 2018.

¹³ California Natural Resources Agency, California Water Action Plan 2016 Update, pages 2 and 3, <http://resources.ca.gov/docs/californiawateractionplan/FinalCaliforniaWaterActionPlan.pdf>. Accessed July 23, 2018.

the California Water Action Plan to address the pressing water issues that California faces while laying groundwork for a sustainable water future:¹⁴

1. Make conservation a California way of life;
2. Increase regional self-reliance and integrated water management across all levels of government;
3. Achieve the co-equal goals for the Delta;
4. Protect and restore important ecosystems;
5. Manage and prepare for dry periods;
6. Expand water storage capacity and improve groundwater management;
7. Provide safe water for all communities;
8. Increase flood protection;
9. Increase operational and regulatory efficiency;
10. Identify sustainable and integrated financing opportunities.

(2) Regional

(a) *Metropolitan Water District's 2015 Urban Water Management Plan*

The Metropolitan Water District's (MWD) 2015 Regional UWMP (RUWMP) addresses the future of MWD's water supplies and demand through the year 2040.¹⁵ Evaluations are prepared for average year conditions, single dry-year conditions, and multiple dry-year conditions. The analysis for multiple-dry year conditions, i.e. under the most challenging weather conditions such as drought and service interruptions caused by natural disasters, is presented in Table 2-4 of the 2015 RUWMP.¹⁶ The analysis in the 2015 RUWMP concluded that reliable water resources would be available to continuously meet demand through 2040.¹⁷ In the 2015 RUWMP, the projected 2040 demand water is 2,201,000 afy, whereas the expected and projected 2040 supply is 2,941,000 afy based on current

¹⁴ California Natural Resources Agency, California Water Action Plan 2016 Update, page 5, http://resources.ca.gov/docs/california_water_action_plan/Final_California_Water_Action_Plan.pdf, Accessed July 23, 2018.

¹⁵ Metropolitan Water District of Southern California, 2015 Regional Urban Water Management Plan, June 2016, http://www.mwdh2o.com/PDF_About_Your_Water/2.4.2_Regional_Urban_Water_Management_Plan.pdf, Accessed July 23, 2018.

¹⁶ Metropolitan Water District of Southern California, 2015 Urban Water Management Plan, page 2-15, http://www.mwdh2o.com/PDF_About_Your_Water/2.4.2_Regional_Urban_Water_Management_Plan.pdf, Accessed July 23, 2018.

¹⁷ Metropolitan Water District of Southern California, 2015 Urban Water Management Plan, page 2-15, http://www.mwdh2o.com/PDF_About_Your_Water/2.4.2_Regional_Urban_Water_Management_Plan.pdf, Accessed July 23, 2018.

programs, and an additional 398,000 afy is expected to become available under programs under development for a potential surplus in 2040 of 1,138,000 afy.¹⁸

MWD has comprehensive plans for stages of actions it would undertake to address up to a 50-percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. MWD has also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region and is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region. MWD is also working with the State on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Delta that would cause levee failure and disruption of State Water Project (SWP) deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct (CRA), SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs. As set forth in their 2015 UWMP, MWD will also continue investments in water use efficiency measures to help the region achieve the 20 percent per person potable water use reduction by 2020.

(b) MWD's 2015 Integrated Resources Plan

The MWD prepares an Integrated Water Resources Plan (IRP) that provides a water management framework with plans and programs for meeting future water needs. It addresses issues that can affect future water supply such as water quality, climate change, and regulatory and operational changes. The most recent IRP (2015 IRP) was adopted in January 2016.¹⁹ It establishes a water supply reliability mission of providing its service area with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and economically responsible way. Among other topics, the 2015 IRP discusses water conservation, local and imported water supplies, storage and transfers, water demand, and adaptation to drought conditions. Specifically, the 2015 IRP includes the following strategies to meet future water demand:²⁰

- Stabilizing and maintaining imported supplies;
- Meeting future growth through increase water conservation and the development of new – and protection of existing – local supplies;
- Pursuing a comprehensive transfers and exchanges strategy;

¹⁸ Metropolitan Water District of Southern California, 2015 Urban Water Management Plan, page 2-15, http://www.mwdh2o.com/PDF_About_Your_Water/2.4.2_Regional_Urban_Water_Management_Plan.pdf. Accessed July 23, 2018.

¹⁹ Metropolitan Water District of Southern California, Integrated Water Resources Plan, 2015 Update, Report No. 1518, January 2016, [http://www.mwdh2o.com/PDF_About_Your_Water/2015%20IRP%20Update%20Report%20\(web\).pdf](http://www.mwdh2o.com/PDF_About_Your_Water/2015%20IRP%20Update%20Report%20(web).pdf). Accessed July 23, 2018.

²⁰ Metropolitan Water District of Southern California, Integrated Water Resources Plan 2015 Update, page 6.5, [http://www.mwdh2o.com/PDF_About_Your_Water/2015%20IRP%20Update%20Report%20\(web\).pdf](http://www.mwdh2o.com/PDF_About_Your_Water/2015%20IRP%20Update%20Report%20(web).pdf). Accessed July 23, 2018.

- Building storage in wet and normal years to manage risk and drought; and
- Preparing for climate change with Future Supply Actions – recycled water, seawater desalination, stormwater capture, and groundwater cleanup.

The 2015 IRP reliability targets identify developments in imported and local water supply, and in water conservation that, if successful, would provide a future without water shortages and mandatory restrictions under planned conditions. For imported supplies, MWD would make investments to maximize CRA deliveries in dry years. MWD would make ecologically-sound infrastructure investments to the SWP so that the water system can capture sufficient supplies to help meet average year demands and to refill the MWD storage network in above-average and wet years.

Planned actions to keep supplies and demands in balance include, among others, lowering regional residential per capita demand by 20 percent by the year 2020 (compared to a baseline established in 2009 state legislation), reducing water use from outdoor landscapes and advancing additional local supplies. IRP Table ES-1, 2015 IRP Update Total Level of Average-Year Supply Targeted (Acre-Feet), of the 2015 IRP, shows the supply reliability and conservation targets. As presented in the IRP, the total supply reliability target for each five-year increase between 2016 and 2040 would exceed the retail demand after conservation. In 2040, retail demand after conservation is estimated to be 4,273,000 acre-feet and the total supply reliability target is approximately 4,539,000 acre-feet, representing an excess of 266,000 acre-feet.²¹

(c) *MWD's Water Surplus and Drought Management Plan*

In 1999, MWD incorporated the water storage contingency analysis that is required as part of any UWMP into a separate, more detailed plan, called the Water Surplus and Drought Management Plan (WSDM Plan). The overall objective of the WSDM Plan is to ensure that shortage allocation of MWD's imported water supplies is not required. The WSDM Plan provides policy guidance to manage MWD's supplies and achieve the goals laid out in the agency's IRP. The WSDM Plan separates resource actions into two major categories: Surplus Actions and Shortage Actions. The WSDM Plan considers the region to be in surplus only after MWD has met all demands for water, including replenishment deliveries. The Surplus Actions store surplus water, first inside then outside of the region. The Shortage Actions of the WSDM are separated into three subcategories: Shortage, Severe Shortage, and Extreme Shortage. Each category has associated actions that could be taken as part of the response to prevailing shortage conditions. Conservation and water efficiency programs are part of MWD's resource management strategy through all categories.²²

²¹ Metropolitan Water District of Southern California, Integrated Water Resources Plan – 2015 Update, Report 1518, page VIII, [http://www.mwdh2o.com/PDF_About_Your_Water/2015%20IRP%20Update%20Report%20\(web\).pdf](http://www.mwdh2o.com/PDF_About_Your_Water/2015%20IRP%20Update%20Report%20(web).pdf). Accessed July 26, 2018.

²² Water Surplus and Drought Management Plan, Report No. 1150. August 1999, http://www.mwdh2o.com/PDF_About_Your_Water/2.4_Water_Supply_Drought_Management_Plan.pdf. Accessed July 26, 2018.

(d) *MWD's Water Supply Allocation Plan*

While the WSDM Plan included a set of general actions and considerations for MWD staff to address during shortage conditions, it did not include a detailed water supply allocation plan or implementation approach. Therefore, in February 2008, MWD adopted a water supply plan called the Water Supply Allocation Plan (WSAP), which has since been implemented three times, most recently in April 2015. The WSAP includes a formula for determining equitable, needs-based reductions of water deliveries, with the potential application of a surcharge, to member agencies during extreme water shortages in MWD's service area conditions (i.e., drought conditions or unforeseen interruptions in water supplies).

The WSAP allows member agencies the flexibility to choose among various local supply and conservation strategies to help ensure that demands on MWD stay in balance with limited supplies. The WSAP formula addresses shortages of MWD supplies, by taking into account growth, local investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs.²³ The allocation period covers 12 consecutive months from July of a given year through the following June.

(3) Local

(a) *LADWP's 2015 UWMP*

In accordance with the California Urban Water Management Planning Act, UWMPs are updated at 5-year intervals. LADWP adopted the 2015 UWMP on April 27, 2016, with the next update planned for 2020. The 2015 UWMP complies with the Urban Water Management Planning Act, builds upon the goals and progress made in the 2010 UWMP and currently serves as the City's master plan for reliable water supply and resource management consistent with the City goals and objectives. The UWMP details LADWP's efforts to promote the efficient use and management of its water resources. LADWP's UWMP used a service area-wide methodology in developing its water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the projected growth in water use for the entire service area was considered in developing long-term water projections for the City to the year 2040. Long range projections are based on Southern California Association of Government (SCAG) growth projections. The 2015 UWMP is based on projections in the in the 2012 Regional Transportation Plan/Sustainable Communities Strategy

²³ Metropolitan water District, 2015 Urban Water Management Plan, page 2-21. http://www.mwdh2o.com/PDF_About_Your_Water/2.4.2_Regional_Urban_Water_Management_Plan.pdf. Accessed August 13, 2018.

(RTP/SCS).²⁴ The 2020 UWMP will take into account updated projections in the 2016-2040 RTP/SCS.

The 2015 UWMP takes into account a number of significant changes that have occurred since LADWP prepared its 2010 UWMP.²⁵ The year 2012 marked the beginning of the current multi-year drought in California. As stated above, in January 2014, Governor Brown proclaimed a drought state of emergency. In July 2014, the SWRCB implemented its Emergency Water Conservation Regulation (Emergency Regulation), as directed by Governor Brown, to take actions to reduce water use by 20 percent statewide. Later, the mandated reductions were increased to 25 percent statewide, with adjustments to account for different climates, expected growth, investment made to create drought-resilient water supplies by different cities through October 2016. In October 2014, Mayor Eric Garcetti issued Executive Directive No. 5 (ED5) Emergency Drought Response which set goals to reduce per capita water use, reduce purchases of imported potable water by 50 percent, and create an integrated water strategy to increase local supplies and improve water security considering climate change and seismic vulnerability. Lastly, in April 2015, the Mayor's Sustainable City pLAn, (since updated in 2019 as the City's Green New Deal and discussed further below), was released establishing targets for the City over the next 20 years to strengthen and promote sustainability. The 2015 UWMP incorporates the objectives of these recent initiatives. Overall the 2015 UWMP projects a 7-percent lower water demand trend than what was projected in the previous 2010 UWMP.²⁶

The 2015 UWMP includes several Near-Term Conservation Strategies and Long-Term Local Supply Strategies to be implemented by LADWP in order to meet its demand for water supply. The near-term strategies include such provisions as the following: enforcing the existing list of prohibited uses of water; expanding the list of prohibited uses of water; extending outreach efforts to the public through various media options and marketing of expanded water conservation incentive and rebate programs; and encouraging regional conservation measures through coordination with MWD. Long-term supply strategies include the following: increasing water conservation through reduction of outdoor water use and new technology (implementing such mechanisms as conservation rebates and incentives; actions by public agencies; conservation in new developments through the implementation of development codes and standards; and additional future studies regarding conservation procedures); water recycling (with mechanisms such as recycled master planning, implementation of water recycling projects inclusive of a Downtown

²⁴ As described in the Project's Water Supply Assessment, page 5, the Project was determined to be consistent with the demographic projections for the City from both the 2012 and 2016 RTPs.

²⁵ Los Angeles Department of Water and Power, Water Supply Assessment, page 11.

²⁶ Los Angeles Department of Water and Power, Water Supply Assessment, page 12.

water recycling project; and public outreach regarding recycled water programs); enhancing stormwater capture; and accelerating clean-up of the San Fernando Basin.²⁷

(b) *Green New Deal*

The City released the first Sustainable City pLAN in April 2015,²⁸ which has been updated in 2019 as the City's Green New Deal. The Green New Deal includes a multi-faceted approach to developing a locally sustainable water supply to reduce reliance on imported water, reducing water use through conservation, and increasing local water supply and availability.

Towards the end, the Green New Deal establishes a number of Targets to be met in order to support the Green New Deal vision:²⁹

- Source 70 percent of Los Angeles water locally (compared to a 15 percent baseline during the July 2013 to June 2014 period) and capture 150,000 acft of stormwater by 2035;
- Recycle 100 percent of all wastewater for beneficial reuse by 2035 (in contrast to a baseline value of 27 percent in fiscal year 2017-2018);
- Build at least 10 new multi-benefit stormwater capture projects by 2025 to improve local water quality and increase local water supply; 100 by 2035; and 200 by 2050;
- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050; and
- Install or refurbish hydration stations at 200 sites, prioritizing municipally-owned building and public properties such as parks, by 2035.

(c) *City of Los Angeles General Plan Framework*

The Citywide General Plan Framework Element (General Plan Framework) establishes the conceptual basis for the City's General Plan.³⁰ The General Plan Framework sets forth a comprehensive Citywide long-range growth strategy and defines Citywide policies regarding land use, housing, urban form and neighborhood design, open space and conservation, economic development, transportation, infrastructure and public services. Chapter 9, Infrastructure and Public Services, of the City's General Plan Framework identifies goals, objectives, and policies for City utilities including water service. Goal 9C

²⁷ Los Angeles Department of Water and Power, Water Supply Assessment, pages 12 - 28.

²⁸ City of Los Angeles, Sustainable City pLAN, 2015, <http://plan.lamayor.org/wp-content/uploads/2017/03/the-plan.pdf>. Accessed October 11, 2018.

²⁹ City of Los Angeles. LA's Green New Deal, 2019, pages 46 - 49. http://plan.lamayor.org/sites/default/files/pLAN_2019_final.pdf, accessed September 3, 2019.

³⁰ City of Los Angeles Department of City Planning, Citywide General Plan Framework, An Element of the Los Angeles General Plan, July 27, 1995, <https://planning.lacity.org/FrameWork.html>. Accessed July 18, 2018.

is to provide adequate water supply, storage facilities, and delivery system to serve the needs of existing and future water needs.³¹ The goals, objectives and policies are addressed by the City in its ordinances and preparation of its UWMP.

(d) *Central City Community Plan*

The Central City Community Plan (Community Plan) states within its purpose statement on page I-2: “The Central City Plan promotes an arrangement of land use, infrastructure, and services intended to enhance the economic, social, and physical health, safety, welfare, and convenience of the people who live, work and invest in the community.” The Community Plan identifies aging infrastructure as an issue regarding commercial and industrial development on pages I-14 and I-15, but does not provide specific policies regarding the provision of infrastructure facilities for individual development projects, which are routinely evaluated on a project-by-project basis.

(e) *Los Angeles Municipal Code*

The City has adopted several ordinances to reduce water consumption in the City. These include measures undertaken pursuant to the City’s green building efforts, encouragement of sustainable development and initiatives to address potential water shortages due to changing supply availability. The ordinances are discussed below.

(i) *Ordinance No. 180,182: Water Efficiency Requirements Ordinance*

The Water Efficiency Requirements Ordinance, City Ordinance No. 180,822, effective December 1, 2009, established water efficiency requirements for new development and renovation of existing buildings, mandating installation of high-efficiency plumbing fixtures in residential and commercial buildings.

(ii) *Ordinance Nos. 181,480, 182,849, 184,248, and 184,692 Los Angeles Green Building Code*

The City’s Green Building Code, Ordinance No. 181,480, subsequently amended by Ordinance No. 182,849, creates a set of development standards and guidelines to further energy efficiency and the reduction of greenhouse gas emissions. It builds upon and sets higher standards than those incorporated in the CALGreen Code. Amongst its provisions are efficiency standards regarding water consumption fixtures and appliances in new buildings. Additionally, the Green Building Code sets further restrictive water efficiency standards for plumbing fixtures, such as 1.2 gpm and 1.8 gpm maximum for lavatory faucets and showerheads, respectively. The Green Building Code is implemented through the building permit review process, during which projects are evaluated for compliance with the required water conservation features.

³¹ City of Los Angeles, General Plan Framework Element, Chapter 9: Infrastructure and Public Services – Water Supply.

(iii) *Ordinance No. 170,978: Landscape Ordinance*

In 1996, Ordinance No. 170,978 amended Los Angeles Municipal Code (LAMC) Sections 12.40 through 12.43 to establish consistent landscape requirements for new projects within the City. This ordinance requires numerous water conservation measures in landscape, installation, and maintenance including but not limited to the use of drip irrigation and soak hoses in lieu of sprinklers to lower the amount of water lost to evaporation and overspray; setting automatic sprinkler systems to irrigate during the early morning or evening hours to minimize water loss due to evaporation; and watering less in the cooler months and during the rainy season. The ordinance also provides guidance intended to increase the “residence time of precipitation” within a given watershed.

(iv) *Ordinance Nos. 181,999 and 183,833: Low Impact Development*

In 2011, the City adopted the Citywide Low Impact Development (LID) Ordinance (LID Ordinance). LID is a stormwater management strategy with the goal of mitigating the impacts of increased runoff and stormwater pollution as close to its source as possible. Among other provisions regarding drainage, the LID Ordinance promotes the collection and use of on-site stormwater for irrigation of landscaping and recharge to the groundwater table where/if appropriate. A related ordinance, Ordinance No. 183,833, the Stormwater and Urban Runoff Pollution Control Ordinance, establishes City requirements to meet its obligation under its Municipal Separate Storm Sewer System (MS4) Permit. The ordinance further delineates implementation procedures for meeting the City’s LID requirements.

(v) *Ordinance Nos. 166,080, 181,288, 183,608, and 184,250: Emergency Water Conservation Plan*

The City’s Emergency Water Conservation Plan was originally adopted in July of 1990 (Ordinance No. 166,080) and has been revised on numerous occasions since. This Ordinance mandates water conservation when available water supplies are reduced as the result of drought conditions, lowered groundwater levels, service disruptions, etc.³² The Ordinance establishes six phases of water conservation requirements where each phase, starting from Phase I, imposes increasingly stringent restrictions to address increasingly severe water shortage emergencies. Such restrictions include limited watering of hardscape, limited landscape irrigation, pool covers, restricted washing of vehicles, restricted filling of decorative fountains with potable water, and more. Phase VI includes all of the prohibited uses from Phase I through V, and also authorizes the Board to implement additional prohibitions based on the water supply situation and to establish appropriate penalties for prohibited uses.

In August 2009, and again in August 2010, the City updated the Emergency Water Conservation Plan Ordinance (Ordinance No. 181,288) by clarifying prohibited uses of

³² City of Los Angeles, Ordinance No. 184,250, Emergency Water Conservation Plan, http://clkrep.lacity.org/onlinedocs/2015/15-0540_ORD_184250_5-3-16.pdf. Accessed July 23, 2018.

water, modifying certain water conservation requirements, and developing new phases of conservation depending on the severity of water shortages. In June 2015, the City amended Ordinance No. 181,288 with the new Ordinance No. 183,608. Ordinance No. 183,608 clarified prohibited uses and added an additional phase to allow for outdoor watering two days a week. In April 2016, the City once again amended Ordinance No. 183,608 with Ordinance No. 184,250, which defined and added fines for unreasonable uses of water. The Ordinance is expected to improve the City's ability to comply with current regulations and respond to the ongoing drought conditions.³³

Phase II of the Water Conservation Ordinance was enacted in August 2010 and is currently in effect.³⁴ In addition to Phase I restrictions, Phase II also limits landscape irrigation to three days per week, and limits watering times for non-conserving nozzles (spray head sprinklers and bubblers) to eight minutes per watering day per station.

(vi) *Service Advisory Request (SAR) and Fire Service Pressure Flow Report (FSPFR) Requirements*

LADWP requires new development projects that are installing new, dedicated fire service lines to have a capacity analysis conducted to determine whether there is sufficient capacity in the water infrastructure proposed to serve the project. The analysis includes the submission of requests for an approved Service Advisory Request (SAR) for domestic water service, and an approved Fire Service Pressure Flow Report (FSPFR) for fire flow, from LADWP. LADWP performs the analysis using their electronic water distribution system data.

b) Existing Conditions

(1) Project Site

(a) Current Water Demand

The Project Site is currently developed with five existing commercial buildings and a paved parking lot. The five existing buildings are approximately one-story in height and are reflective of older single story development in the Downtown area. The estimated water consumption for the existing uses, as taken into account in the increase in Project demand below, is 291 gallons per day (gpd) or 0.33 afy.³⁵

(b) Water Infrastructure

The LADWP maintains water infrastructure in the City while complying with local, state and federal regulations related to water (including water conservation requirements). As described further in the Project's *Utility Report*, water service is provided at the Project Site from a 12-inch main line in Olive Street as well as a 10-inch main line in 11th Street.

³³ Los Angeles Department of Water and Power, Water Supply Assessment, page 12.

³⁴ Los Angeles Department of Water and Power, Water Supply Assessment, page 13.

³⁵ Based on LADWP billing data (annual average from 2010 to 2017). Los Angeles Department of Water and Power, Water Supply Assessment, page 8, Table 1, footnote 2.

The 12-inch main line in Olive Street has a system maximum pressure of 91 psi based on a street curb elevation of 246 feet above sea level. The 10-inch main line in 11th Street has a system maximum pressure of 62 psi based on a street curb elevation of 244 feet above sea level.

(c) *Regional and City Water Supply*

LADWP is responsible for providing water within the City limits and ensuring that the delivered water quality meets applicable California health standards for drinking water. Water is supplied to the City from the following sources: Los Angeles Aqueduct (LAA), local groundwater, imported water from MWD and recycled water. However, as is true of any entitlement or right to receive water from a water source, the actual amount of water that can be drawn from or delivered by that source in any given year can be less than the entitlement amount due to weather or climate conditions, such as drought, reduced snow pack, and service interruptions, that affect the source's water supplies, as well as other factors discussed below.

Table IV.O.2-1, LADWP Water Supply, summarizes LADWP water supplies drawn from these sources over the last 10 years. As shown in Table IV.O.2-1, in 2016, LADWP had an available water supply of 492,447 afy consisting of the following.³⁶

- 19 percent from the LAA
- 15 percent from local groundwater
- 64 percent from the MWD
- 2 percent from recycled water

**TABLE IV.O.2-1
LADWP WATER SUPPLY (IN ACRE-FEET)**

Year	Los Angeles Aqueducts	Local Groundwater	MWD	Recycled Water	Transfer, Spread, Spills, and Storage	Total
2007	127,392	88,041	439,353	3,595	-57	658,438
2008	148,407	64,604	427,422	7,048	1,664	645,817
2009	137,261	66,998	351,959	7,570	554	563,234
2010	251,126	68,346	205,240	6,900	-938	532,550
2011	357,752	49,915	119,481	7,708	-153	535,009
2012	166,858	59,109	326,123	5,965	1,182	556,873
2013	64,690	66,272	438,534	9,253	-2,404	581,153
2014	63,960	96,394	391,325	11,307	2,080	561,515

³⁶ Los Angeles Department of Water and Power, Water Supply Assessment, page 28.

Year	Los Angeles Aqueducts	Local Groundwater	MWD	Recycled Water	Transfer, Spread, Spills, and Storage	Total
2015	33,236	80,155	378,439	9,829	432	500,432
2016	95,566	72,503	314,301	9,095	-981	492,447

SOURCE: Los Angeles Department of Water and Power, WSA, page 28.

Less than one percent of the utilized water supply was drawn from LADWP's reservoir system or provided via transfer. LADWP's available water supply has historically been generally equivalent to the demand from year to year, as LADWP purchases additional water from MWD only on an as-needed basis. These water sources are described in further detail below.

(i) *Los Angeles Aqueducts*

Water from the LAA comes primarily from streams and groundwater originating from snowmelt runoff from the eastern Sierra Nevada Mountains in central and northern California. In response to varying climate-related and hydrologic conditions, water supplies from these sources can fluctuate yearly. The City holds water rights in the eastern Sierra Nevada where the LAA water supplies originate. Pursuant to various legislative enactments, regulations, and written agreements between LADWP and the Great Basin Unified Air Pollution Control District (GBUAPCD), LADWP's ability to export LAA water is impacted by water levels in Mono Lake and water commitments necessary to implement a dust mitigation program for Owens Lake. Therefore, the LAA's deliveries of water to LADWP have in recent years been at less than historical annual levels.³⁷

On November 14, 2014, the City and GBUAPCD announced an agreement which defined and limited the full extent of future dust mitigation for LADWP concerning Owens Lake. The agreement also allows LADWP to use water efficient and waterless dust mitigation measures. LADWP expects to save significant amounts of water in coming years with implementation of the Owens Lake Master Project and other water conservation projects that would then become available to LADWP as water supplies.³⁸

Average deliveries of water from the LAA system have totaled approximately 111,293 afy from between (FY) 2011/12 and 2015/16. During this period, a record low snow pack for the Los Angeles Aqueducts watershed in the eastern Sierra Nevada, one of the primary water sources for the aqueducts, was recorded on April 1, 2015. The average annual Los Angeles Aqueducts delivery between 2015 and 2040, based on the 50-year average hydrology from FY 1961/62 to 2010/11, is expected to be approximately 278,000 afy and to gradually decline to 267,000 afy due to expected reductions in snowpack caused by

³⁷ Los Angeles Department of Water and Power, Water Supply Assessment, page 30.

³⁸ Los Angeles Department of Water and Power, Water Supply Assessment, page 30.

climate change. However, with the anticipated completion of the Owens Lake Master Project by 2024, the projected Los Angeles Aqueducts delivery is expected to increase to 286,000 afy, which would offset most of the anticipated long-term losses due to climate change, should they occur.³⁹

(ii) Groundwater

LADWP extracts groundwater from the San Fernando, Sylmar, and Central groundwater basins.⁴⁰ LADWP holds adjudicated extraction rights in each of the groundwater basins, meaning the City has been legally allocated quantified annual pumping and groundwater storage rights in the basins determined by judicial decrees. The San Fernando and Sylmar Basins are subject to the judgment in *City of San Fernando vs. City of Los Angeles*, which requires that pumping be reported to the court-appointed Upper Los Angeles River Area (ULARA) Watermaster. The Central Basin is also subject to a court judgment that requires that pumping be reported to the Water Replacement District of Southern California, which acts as the administrative body of the court-appointed basin Watermaster.

The San Fernando Basin underlies approximately 112,000 acres of land in the ULARA. The majority of LADWP's groundwater is extracted from the San Fernando Basin. The City has an annual pumping right of 87,000 acre-feet in the San Fernando Basin and has accumulated 537,622 afy of stored water credits, i.e., that is available water allocation from the Los Angeles County Flood Control District stormwater recharge program, in the basin as of October 2014.⁴¹ The Sylmar Basin, located in the northern part of the ULARA, overlies 5,600 acres of land. LADWP has an annual entitlement of 3,570 afy from the Sylmar Basin, which will increase to 4,170 afy between FY 2015-16 and FY 2038-39 to utilize stored groundwater rights held by the City.⁴² The City also holds a right to 17,236 afy from the Central Basin, and holds additional storage rights in that basin.⁴³

The supplies of groundwater in recent years as well as projections through 2040 are shown in **Table IV.O.2-2, Local Groundwater Basin Supply**. For the July 2014–June 2015 period, LADWP extracted 80,097 acre-feet and 6,948 acre-feet from the San Fernando and Central Basins, respectively, but no water was extracted from the Sylmar Basin. LADWP plans to continue extractions from its groundwater basins in the coming years to offset reductions in imported supplies. However, extraction from the basins may be limited by water quality, sustainable pumping practices, and groundwater elevation. Future projections for groundwater extraction at 5-year intervals are also shown in Table IV.O.2- 2. As indicated, the expected extraction for the San Fernando, Sylmar and Central

³⁹ Los Angeles Department of Water and Power, Water Supply Assessment, page 31.

⁴⁰ Currently, Los Angeles Department of Water and Power does not exercise its pumping rights at the West Coast Basin due to localized groundwater contamination issues.

⁴¹ Los Angeles Department of Water and Power, Water Supply Assessment, page 31.

⁴² Los Angeles Department of Water and Power, Water Supply Assessment, page 31.

⁴³ Los Angeles Department of Water and Power, Water Supply Assessment, page 32.

Basins in the years leading up to and inclusive of 2040 is 92,000 afy, 3,570 afy, and 18,500 afy, respectively.

(iii) *Metropolitan Water District of Southern California*

LADWP purchases a large amount of its water supply from MWD. MWD is comprised of 26 member agencies, which include the City through LADWP. MWD is the largest imported wholesaler water service supplier for domestic and municipal uses in Southern California. MWD's primary water supply resources are the Colorado River and the SWP. All of MWD's 26-member agencies have preferential rights to purchase water from MWD. As of June 30, 2016, LADWP has a preferential right to purchase 19.94 percent of MWD's total annual water supply. MWD prepares to meet its member agencies' demand for water through assessments of future supply and demand, which are presented in the MWD's RUWMP, prepared under the Urban Water Management Planning Act.

As stated above, analysis in the 2015 RUWMP concluded that reliable water sources would be available to continuously meet projected demand through 2040. In the 2015 RUWMP, the projected 2040 demand for water is 2,201,000 afy, whereas the expected supply is 2,941,000 afy, and an additional 398,000 afy is expected to become available under programs under development for a potential surplus of 1,138,000 afy.⁴⁴

TABLE IV.O.2-2
LOCAL GROUNDWATER BASIN SUPPLY (IN ACRE-FEET)

Year	San Fernando	Sylmar	Central
Recent Years			
2010-2011	44,029	225	5,099
2011-2012	50,244	1,330	9,486
2012-2013	50,550	1,952	6,310
2013-2014	68,784	891	9,727
2014-2015	80,097	0	6,948
Future Projections			
2019-2020	90,800	4,170	18,500
2024-2025	88,000	4,170	18,500
2029-2030	84,000	4,170	18,500
2034-2035	92,000	4,170	18,500
2039-2040	92,000	3,570	18,500

SOURCE: Los Angeles Department of Water and Power, Water Supply Assessment, page 32.

⁴⁴ Metropolitan Water District of Southern California, 2015 Urban Water Management Plan, page 2-15.

3. Project Impacts

a) Methodology

Pursuant to Section 10912 of the CWC, a WSA is required and has been prepared for the Project as it meets the following criterion of SB 610:

- Residential developments of more than 500 dwelling units.

The WSA data and findings regarding the analysis of water supply are provided in Appendix P-2 of this Draft EIR, and summarized this section of the Draft EIR.⁴⁵ The WSA estimates the Project's water demand and compares it to the LADWP's ability to supply water pursuant to its most recent 2015 UWMP. The Project's water demand for indoor land uses was calculated on the basis of generation factors provided by the City's Department of Public Works, Bureau of Sanitation (LASAN). The Project's estimated water demand for landscaping was based on the state's Model Water Efficient Landscape Ordinance. The Project's net increase in water demand is calculated by projecting the Project's water demand and then subtracting both the water saved by the Project's water-saving features and the water demand of the Project's current uses.

The analysis of the Project's impacts on water facilities, which include a variety of infrastructure elements from aqueducts and reservoirs to local piping, focuses on local infrastructure facilities that convey water to the Project Site. Issues regarding facilities for collecting and storing water are taken into account in the analysis of water supply, per the WSA analysis. The analysis of the local water facilities below identifies the water lines available to serve the Project Site, defines the available water capacity and pressure provided by those lines, sets forth City requirements for providing needed new infrastructure, and makes a determination regarding whether the existing capacity and pressure are sufficient to serve the Project or if infrastructure upgrades are necessary to serve the Project.

The analysis in this section is supported by information included in the Project's *Utility Report*. Information included therein is supported by LADWP SAR reports that measure water pressure in nearby hydrants; and an LADWP Tract map review that determines the availability of main-lines to serve the Project Site.

The Appendix G threshold question regarding water supply also includes language regarding wastewater treatment facilities. For purposes of this Draft EIR section, the only focus will be on water supply, as the potential impacts to wastewater treatment facilities is provided in Section IV.O.1, *Wastewater*, of this Draft EIR.

The analysis identifies the available water facilities and infrastructure to serve the Project's domestic water demand. Impacts regarding adequacy of water infrastructure for

⁴⁵ Los Angeles Department of Water and Power, Water Supply Assessment, Appendix P-2 of this Draft EIR.

fire-fighting purposes are addressed further in Section IV.L.1, *Fire Protection*, of this Draft EIR.

b) Thresholds of Significance

In assessing impacts related to water supply in this section, the City has determined to use the questions in Appendix G of the State CEQA Guidelines as the thresholds of significance for the Project. The factors below from the L.A. CEQA Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G questions.

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to water supply if it would:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities, or the expansion of existing facilities, the construction or relocation of which would cause significant environmental effects?***
- b) Would the project have sufficient water supplies available to service the project and reasonably foreseeable future development during normal, dry and multiple dry years?***

The L.A. CEQA Thresholds Guide identifies the following factors to evaluate water supply:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- The amount by which the project would cause the projected growth in population, housing, or employment for the Community Plan area to be exceeded in the year of project completion; and
- The degree to which scheduled water infrastructure or project design features would reduce or offset service impacts.

c) Project Characteristics

The Project would, comply with the City's Green Building Code and the LID Ordinance. In addition, the Applicant has committed to implement Best Management Practices that have stormwater recharge or reuse benefits for the entire Project, thus reducing its demand for water. These features are discussed further in Section IV.H, *Hydrology and Water Quality*, of this Draft EIR.

In addition to these features, the Applicant has committed to implementing the following Project Design Features to conserve water and reduce water demand beyond the levels otherwise required:

WS-PDF- 1: Water Conservation Features:

The Project shall implement the following water conservation features that are in addition to those required by codes and ordinances.

- High Efficiency Toilets with a flush volume of 1 gallon per flush, or less
- Urinal flush volumes of 1.0 gallons per minute, or less
- Showerheads with a flow rate of 1.2 gallons per minute, or less
- ENERGY STAR Certified Residential Clothes Washers - Front-loading or Top-loading with Integrated Water Factor of 3.2 or less and capacity of 4.5 cubic feet
- ENERGY STAR Certified Residential Dishwashers - compact with 3 gallons/cycle or less
- Domestic Water Heating System located close proximity to point(s) of use
- Individual metering and billing for water use for every residential dwelling unit and commercial unit
- Tankless and on-demand Water Heaters
- Water-Saving Pool Filter
- Pool/Spa recirculating filtration equipment
- Pool splash troughs around the perimeter that drain back into the pool
- Install a meter on the pool make-up line so water use can be monitored and leaks can be identified and repaired
- Reuse pool backwash for irrigation
- Leak Detection System for swimming pools and Jacuzzi
- Drip/Subsurface Irrigation (Micro-Irrigation)
- Micro-Spray
- Proper Hydro-zoning/Zoned Irrigation - (groups, plants with similar water requirements together)
- Artificial Turf
- Drought Tolerant Plants - approximately 70 percent of landscaping
- Water Conserving turf - approximately 30 percent of total landscaping

d) Project Impacts

Threshold a) *Would the Project require or result relocation or construction of new or expanded water facilities or the expansion of existing facilities, the construction or relocation of which would cause significant environmental effects?* Less than Significant Impact.

(1) Construction

Project construction activities would occur incrementally over time from the start of construction until occupancy of the Project and would be temporary in nature. Consequently, construction would result in short-term and intermittent demand for water during demolition, excavation, grading, and construction activities on-site, including but not limited to use in soil watering (fugitive dust control), clean up, masonry, painting, and other activities. Water for construction activities may be trucked in by private purveyors, but it could also be provided by tapping into the existing water lines that are already serving the Project Site, or a combination of both. Existing water lines serve the existing uses, which are estimated to consume 291 gpd, and which have provided a higher level of service in the past when the buildings operated at full occupancy. Further, as discussed in the operations analysis below, there is substantial flow and pressure available to meet the larger, long-term demands of Project operation. Therefore, the existing services would also necessarily be capable of serving the reduced lower water demand associated with Project construction. Overall, demolition and construction activities would require a minimal volume of water, and less than the existing uses require. **Therefore, relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects would not be required; and this impact would be less than significant. No further mitigation is required.**

(2) Operation

The Project's projected net increase in water demand over the existing on-site water consumption would be 108,070 gpd of water flow and the Project's projected total water demand would be 108,361 gpd of water flow that would need to be conveyed to the Project Site through the City's water conveyance infrastructure. Existing water service infrastructure to convey water to the Project Site is available from a 12-inch main line in Olive Street as well as a 10-inch main line in 11th Street.

As discussed in the Project's *Utility Report*, the Project was approved by LADWP to have a 10-inch meter that serves both domestic and fire services to be placed along Olive Street. The Project was also approved for a 6-inch combination meter that would serve both domestic and fire services on Olive Street, if needed. Installation would be done by LADWP and would include new hot taps, laterals, and detector checks for the meter.⁴⁶ The water availability is noted within the *Utility Report* based on the results of LADWP

⁴⁶ David Evans and Associates, Inc., Civil Engineering Report, 1045 South Olive Street Development, Infrastructure, June 20, 2019, pp. 4-5 and Appendix 2 - SAR, therein.

Fire Service Pressure Flow Reports included therein; and the May 1, 2017 and January 24, 2018 LADWP letters indicating that the Project can be supplied with water from the municipal system and that LADWP's Water Services Organization would not object to recording the Project's subdivision map, also included in the Appendix P-1 of this Draft EIR.⁴⁷ Also, the *Utility Report* compares the total domestic water flow that would be required for the Project to the flow and pressure levels identified in the hydrant tests. The Project would require a total demand of 1,588 gpm. Based on LADWP's approved SAR for the Project, the available flow in the system is 2,500 gpm, indicating that there is sufficient water pressure and flow to serve the Project.⁴⁸

Accordingly, the existing LADWP main lines would be adequate to provide for the water flow necessary to serve the Project. Thus, no upgrades to the water main lines that serve the Project Site would be required as a result of the Project. The Applicant would be responsible for providing the necessary on-site water infrastructure on the Project Site to provide service for the Project activities. The on-site facilities would include pressure regulators, booster pumps and pipe sizing to maintain appropriate water flows and pressure levels. All of the facilities would be provided on-site or with requisite linkages to the existing main lines. The provisions of such on-site facilities and potential main-line linkage would involve only minor utility work as part of the construction of the Project, with individually negligible effects on the physical environment.

In addition, LADWP's Los Angeles Aqueduct Filtration Plant (LAAFP) provides ultraviolet water treatment and microfiltration to ensure that stringent drinking water standards are maintained for the City's water supply. This Plant was recently updated with the implementation of a Modernization - Oxygen Plant Replacement program, that replaced aging equipment. Improvements to the LAAFP in recent years have allowed the LADWP to meet water quality standards by integrating energy efficiency into the capital improvement program. Other capital projects at the facility with energy efficiency benefits include replacing the flocculation paddle mixers with more energy efficient jet mixers, improving the disinfection process by covering the reservoir with shade balls, and upgrading lighting and heating, cooling and ventilation (HVAC) systems in facility buildings.⁴⁹ Recent improvements also reduce greenhouse gas emissions and reduces operating and maintenance costs.

Therefore, relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects would not be required.⁵⁰ No mitigation measures are required.

⁴⁷ David Evans and Associates, Inc., Civil Engineering Report, 1045 South Olive Street Development, Infrastructure, June 20, 2019.

⁴⁸ David Evans and Associates, Inc., Civil Engineering Report, 1045 South Olive Street Development, Infrastructure, June 20, 2019, p. 5.

⁴⁹ Better Buildings, U.S. Department of Energy, Los Angeles Aqueduct Filtration Plant Modernization – Oxygen Plant Replacement.

⁵⁰ Los Angeles Department of Water and Power, Water Supply Assessment, pages 4 and 5.

Threshold b) *Would the project have sufficient water supplies available to service the project and reasonably foreseeable future development during normal, dry and multiple dry years?*
Less than Significant Impact.

(1) Construction

Construction activities for the Project would result in a temporary demand for water associated with such activities as soil compaction and earthwork, dust control, mixing and placement of concrete, and equipment and site cleanup. These activities would occur incrementally throughout the construction period. As described in the facilities analysis above existing water lines serve the existing uses, which are estimated to consume 291 gpd, and which have provided a higher level of water flow in the past when the buildings operated at full occupancy. Further, as discussed in the operations analysis there is substantial water supply to meet the larger, long-term demands of Project operation. The temporary nature of construction activities, the short-term and intermittent water use during construction, and the limited consumption of the activities requiring water would not create substantial water demand. **Therefore, water supply for construction activities would be provided from existing water supplies. Construction impacts would be less than significant. No mitigation measures are required.**

(2) Operation

Estimated domestic water demand calculations for the Project from the WSA are shown in **Table IV.O.2-3, *Estimated Project Water Demand***. As indicated therein, the Project would result in a net increase in domestic water demand of an estimated 108,070 gpd or 121.06 afy. The calculation of the water demand includes reduction credits of 62,901 gpd for conservation features required by regulation and another 8,856 gpd for conservation features committed to by the Project Applicant (i.e., Project Design Feature WS-PDF-1). The additional reductions for the Project Design Features are shown in **Table IV.O.2-4, *Estimated Additional Water Conservation***. The conservation reductions that are shown in Table IV.O.2-3, would result in a reduction in the 180,118 gpd base estimate of approximately 42 percent.

**TABLE IV.O.2-3
ESTIMATED PROJECT WATER DEMAND**

Existing ¹					(gpd)	(afy)
Commercial Buildings					291	0.33
Existing to be Removed Total ²						
Proposed Use ¹	Quantity	Unit	Water Use Factor ³ (gpd/unit)	Base Demand (gpd)	Required Ordinances Water Savings ⁴ (gpd)	Proposed Water Demand (gpd) (afy)
Residential: Apt. Studio	112	du	75	8,400		
Residential: Apt. 1 bd	366	du	110	40,260		
Residential: Apt. 2 bd	220	du	150	33,000		
Residential: Apt. 3 bd	96	du	190	18,240		
Base Demand Adjustment (Residential Units) ⁵				11,927		
Residential Units Total	794	du		111,827	26,550	85,277 95.53
Restaurant	500	seat	30	15,000		
Support/Office	1,236	sf	0.12	148		
Spa	13,322	sf	0.65	8,659		
Gym	10,680	sf	0.20	2,136		
Outdoor/Roof Terraces	32,481	sf	0.05	1,624		
Other Tenant Facilities	17,029	sf	0.20	3,406		
Dog Wash	1,053	sf	0.10	105		
Community Room	4,761	sf	0.05	238		
Other Total				31,316	1,110	30,206 33.84
Landscaping ⁶	11,290	sf		1,055	475	580 0.65
Parking Structure ⁷	426,458	sf	0.02	280	0	280 0.31
Cooling Tower ⁸	2,000	ton	18	35,640	34,766	874 0.98
Proposed Subtotal				180,118	62,901	117,217 131.31

Proposed Use ¹	Quantity	Unit	Water Use Factor ³ (gpd/unit)	Base Demand (gpd)	Required Ordinances Water Savings ⁴ (gpd)	Proposed Water Demand (gpd) (afy)
Less Existing to be Removed Total						-291 -0.33
Less Additional Conservation ⁹						-8,856 -9.92
Net Additional Water Demand						108,070 121.06

Abbreviations: bd - bedroom du - dwelling unit sf - square feet gpd - gallons per day afy - acre feet per year

¹ Provided by City of Los Angeles Department of City Planning in the Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix A of the WSA.

² The existing water demand is based on the LADWP billing data (annual average from 2010 to 2017).

³ Proposed indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available at <http://www.lacitysan.org/fmd/pdf/sfcfeerates.pdf>.

⁴ The proposed development land uses will conform to City of Los Angeles Ordinance No. 184248, 2013 California Plumbing Code, 2013 CALGreen Code, 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.

⁵ Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the current version of Bureau of Sanitation Sewer Generation Rates.

⁶ Landscaping water use is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

⁷ Auto parking water uses are based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, and 12 times/year cleaning assumption.

⁸ Operating 24 hours/day, 7 days/week, 6 cycles of concentration and 55 percent of chiller capacity.

⁹ Water conservation due to additional conservation commitments agreed by the Applicant (as reflected in WS-PDF-1 of this Draft EIR) and calculated in Table IV.O.2-4, below.

SOURCE: Los Angeles Department of Water and Power, Water Supply Assessment – 1045 Olive Project, 2018.

**TABLE IV.O.2-4
ESTIMATED ADDITIONAL WATER CONSERVATION**

Conservation Measures ¹	Quantity	Units	Water Saving Factor ²	Water Saved	
			(gpd/unit)	(gpd)	(afy)
Toilet - Residential: Studio	112	du	1.54	172	0.19
Toilet - Residential: 1 Bd	366	du	1.54	564	0.63
Toilet - Residential: 2 Bd	220	du	3.85	847	0.95
Toilet - Residential: 3 Bd	96	du	6.16	591	0.66
Showerhead - Residential: Studio	112	du	3.18	356	0.40
Showerhead - Residential: 1 Bd	366	du	3.18	1,164	1.30
Showerhead - Residential: 2 Bd	220	du	7.95	1,749	1.96
Showerhead - Residential: 3 Bd	96	du	12.72	1,221	1.37

Clothes Washer	807	du	2.25	1,816	2.03
Dishwasher	807	du	0.06	48	0.05
Residential Unit Conservation Total				8,528	9.55
Toilet	16	ea	6.09	97	0.11
Urinal	2	ea	0.69	1	0.00
Showerhead	6	ea	15.00	90	0.10
Clothes Washer	6	ea	2.25	14	0.02
Dishwasher	6	ea	0.10	1	0.00
Residential Common Conservation Total				203	0.23
Toilet	8	ea	4.79	38	0.04
Urinal	3	ea	0.69	2	0.00
Restaurant Conservation Total				40	0.04
Landscaping Total Conservation³				85	0.10
Total Additional Water Conserved =				8,856	9.92

Abbreviations: du - dwelling unit gpd - gallons per day afy - acre feet per year ea – each

¹ Water conservation measures agreed to by the Applicant. See PDF WS-1.

² Based on LADWP estimates.

³ Landscaping water conservation is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

SOURCE: Los Angeles Department of Water and Power, Water Supply Assessment – 1045 Olive Project, 2018.

LADWP has determined in the WSA that there are adequate water supplies available from existing LADWP supplies to meet existing and projected water demand associated with the Project during normal, single-dry, and multiple-dry water years through at least 2040 (the planning horizon of the LADWP's 2015 UWMP).⁵¹ In addition, as stated in the WSA, the Project's water demand falls within the LADWP's 2015 UWMP's projected increases in Citywide water demand, including during multi-dry year water conditions.⁵²

As discussed in the water reliability section of the 2015 UWMP, LADWP expects to have a reliable supply of up to 675,700 acre-feet of water in 2040.⁵³ As further discussed in the UWMP, LADWP expects to maintain a reliable water supply through conservation, increased recycled water use (including both non-potable and potable reuse), increasing the City sources of water and reducing the need for purchases of imported water from the MWD.⁵⁴ Between 2015 and 2040, the City's locally developed supplies are planned to

⁵¹ Los Angeles Department of Water and Power, Water Supply Assessment, pages 4 and 5.

⁵² Los Angeles Department of Water and Power, Water Supply Assessment, pages 4 and 5.

⁵³ Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, page ES-23.

⁵⁴ Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, page ES-1.

increase from 14 percent to 49 percent of total water supply usage in dry years, or to 47 percent in average years.⁵⁵ The City's imported supplies will decrease significantly from 86 percent to 51 percent of water supply use in dry years, or to 53 percent in average years.

Regarding the MWD's ability to sell water to the LADWP to the extent needed, the MWD's 2015 RUWMP shows that with its investments in storage, water transfers, and improving the reliability of the Delta, critical water shortages are not expected to occur within the next 25 years.⁵⁶ As previously stated, both the 2015 RUWMP and 2015 IRP anticipate a surplus of available water to meet projected demand.

Based on the above, as reflected in the Project WSA, there would be sufficient domestic water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years. Therefore, the water supply impacts of the Project would be less than significant. No mitigation measures are required.

e) Cumulative Impacts

Chapter III, *General Description of Environmental Setting*, of this Draft EIR, identifies 195 related projects, of which four are infrastructure projects, that are anticipated to be developed in the Project vicinity and that would be a component of the overall development occurring within the LADWP service area. The related projects would contribute, in conjunction with the Project, to increases to overall water demand in the City.

(1) Water Facilities

Development of the Project, in conjunction with the related projects, would cumulatively increase demands on service capacity on the existing water infrastructure system. The related projects, as well as the Project, are served off of the existing water supply grid within the Downtown area.

As the water provider for the City, LADWP reliably provides water in its service area, which primarily originates from Sierra Nevada snowmelt and the Colorado River to aqueduct systems and stored groundwater. Based on demand projections through 2040 and population forecasts by SCAG, LADWP has water supply availability to provide the City, including the related projects, with needed water throughout this forecasted time and beyond.⁵⁷ As part of its ongoing planning and forecasting for future demand, LADWP's main objective is to confirm that it can provide reliable water service into the future and takes this into account in its plans.⁵⁸

⁵⁵ Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, page ES-20.

⁵⁶ Metropolitan Water District of Southern California, 2015 Regional Urban Water Management Plan, page ES-5.

⁵⁷ Los Angeles Department of Water and Power, Water Supply Assessment, page 10.

⁵⁸ Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, page ES-2.

The LADWP prepares and updates the Water Infrastructure Plan to establish the goals and targets for replacing and/or upgrading components of the water system infrastructure. Infrastructure is upgraded as needed, with funding from a 10-year capital budget. Distribution mainlines (i.e., lines less than 20 inches in diameter) are replaced as needed on the basis of age and condition.⁵⁹

The related projects represent typical mixed-use development and do not include uses that would have extra-ordinary requirements for infrastructure such as large scale industrial or agricultural uses (i.e. types of use that could not be served off-of the existing mainline distribution grid).

Impact analyses for new subdivisions are done on a case-by-case basis. LADWP receives copies of final tract maps submitted to the City Engineer's Office for review and determination of required facilities. Arrangements for required water facilities are determined and must be concluded before the DWP can release a tract for recordation. Such review for the Project was performed and LADWP concluded that the tract can be supplied with water from the municipal system subject to the LADWP System of rules, stating that "All required water mains have been installed.... Therefore, the Water Services Organization (WSO) of the LADWP does not object to the recordation of this tract map."⁶⁰

All related subdivision projects would be subject to similar LADWP review to assure that existing public utility facilities would be adequate to meet the fire and domestic water demands of each project. Related Project No. 18, Related Project No. 190 and Related Project No. 191 include the following subdivision case numbers, respectively: VTT 82178, VTTM 82109, and VTTM 82141. These related projects in close proximity to the Project include proposed subdivisions and would undergo similar review. The Project's *Utility Report* estimates that these three projects combined with the Project, would have a need for between 4,697 gpm and 5,373 gpm; and this flow could be provided through the design of the building plumbing systems that would incorporate pressure reducing valves and domestic water pumps as required for the individual buildings.⁶¹ Future development projects would be subject to the locally mandated water conservation programs, and the LAFD would conduct evaluations to ensure facilities are adequate.

Related projects in the Downtown area may be subject to minor construction of hook-ups to the local service system, the addition of hydrants to meet the fire flow requirement for their development or on-site improvements as part of their project design. However, each

⁵⁹ Los Angeles Department of Water and Power, 2017 – 2018 Water Infrastructure Plan, <https://s3-us-west-2.amazonaws.com/ladwp-jtti/wp-content/uploads/sites/3/2018/08/06141812/2017-18-Water-Infrastructure-Plan-Web-final.pdf>. Accessed March 20, 2019.

⁶⁰ Letter from Jesus M. Gonzalez, P.E., Engineer of the Central District, Water Distribution Engineering, LADWP to Mr. Edmond Yew, Land Development Section, Bureau of Engineering, department of Public Works. January 24, 2018, Included in the Civil Engineering Report, Appendix P-1, of this Draft EIR.

related project, as well as all cumulative projects developed in the LADWP service area would be evaluated for local service capacity during review and approval by the City. Developers are required to improve facilities where appropriate and development cannot proceed without appropriate verification and approval by LADWP and LAFD, with funding by the developers.⁶² Required improvements by related projects, if they should occur, would be limited to minor, local improvements. Such improvements require only minor construction with very limited short-term construction impacts on traffic and perhaps noise. As noted above the Project would not require improvements to local mainlines. Moreover, as the Project would not require the construction of any off-site water infrastructure because its projected demand can be met by existing facilities,⁶³ the Project would not create a cumulatively considerable contribution to the related projects' impacts on the City's water infrastructure system.

Therefore, the construction of new water facilities or the expansion of existing facilities, the construction of which would cause significant environmental effects, are not anticipated for the cumulative water system demands resulting from the combination of the proposed Project with the related projects. The Project would also not have a cumulatively considerable significant impact. No mitigation measures are required.

(2) Water Supply Availability

An estimate of the cumulative base water demand from the Project, in combination with the related projects is shown in **Table IV.O.2-5, *Estimated Cumulative Water Demand***. The cumulative water demand for the related projects is presented based on the use type and the appropriate water demand factor assigned to each use. As indicated in Table IV.O.2-5, the estimated cumulative plus Project water demand would be 9,106,566 gpd or approximately 10,201 afy (with the Project representing approximately 1.2 percent of this demand). The water demand reflected in Table IV.O.2-5, takes into account regulatory conservation measures that would be required of the related projects but does not account for Project Design Features implemented by individual projects that would exceed the regulatory requirements. The estimate of demand for the related projects also does not net out water consumption from existing uses at those development sites. Accordingly, the projections of cumulative water demand are highly conservative.

⁶² Verification and approval are obtained by LADWP to ensure adequate fire flow and water distribution facilities through a Service Advisory Request (SAR) and water systems clearance (see Civil Engineering Report, Appendices 2 and 3, included as Appendix P-1 of this EIR).

⁶³ David Evans and Associates, Inc., Civil Engineering Report, 1045 South Olive Street Development, Infrastructure, June 20, 2019, Appendix P-1 of this Draft EIR (see therein LADWP Fire Service Pressure Flow Reports and the May 1, 2017, and January 24, 2018 LADWP letters regarding availability of water supply infrastructure).

**TABLE IV.O.2-5
ESTIMATED CUMULATIVE WATER DEMAND**

Land Uses	Quantity ^a	Unit	Generation Factor ^b	Base Water Demand	Ordinance Required Savings ^c	Net Demand	
				(gpd)	(gpd)	(gpd)	(afy)
Residential	49,688	du	150 gpd/du	7,453,200	1,788,768	5,664,432	
Non-Residential							
Office	7,217	1,000 sf	120 gpd/ksf	866,040			
Retail	3,815	1,000 sf	25 gpd/ksf	95,375			
Restaurant	27,080	seats	30 gpd/seat	812,400			
Hotel	9,242	Rooms	120 gpd/room	1,109,040			
Schools	27,165	Students	11 gpd/student	298,815			
Other Projects ^d	896	1,000 sf	120 gpd/ksf	107,520			
Sum: Non-Residential				3,280,190	131,568	3,157,622	
Ancillary Water Consumption ^e						176,441	
Total Without Project				10,475,81		8,998,496	10,080
Project (net increase)	--	--	--			108,070	121
Total (with project)	--	--	--			9,106,566	10,201

Abbreviations: du = dwelling units; sf = square feet; rms = rooms; ksf = thousand square feet; ac = acres; stu = students.

^a The calculation of the development amounts for the related projects is provided in Appendix L, *Population and Housing Appendix*, of this Draft EIR.

^b Wastewater generation factors are from LADPW's 2012 Sewage Facilities Charge - Sewage Generation Factors for Residential and Commercial Categories.

^c The Project's WSA estimated that the Project's Base Water Demand would be reduced due to the implementation of regulatory reductions that are not taken into account Base Water Generation factors. The WSA estimated that that the reductions due to regulatory required water conservation features would reduce water consumption by approximately 24 percent for residential uses and 4 percent for non-residential uses. As the related projects include mixed-use development similar to that of the Project similar conservation factors were applied to the related projects. Those factors have been applied here.

^d The other related projects not accounted for in the above major categories include small amounts of varied activity such as media production area and conference space. The generation rate of 120 gpd/1,000 sf feet is the office rate. This is a conservative rate as office uses result in higher wastewater rates than typical mixed uses found in the Downtown area.

^e The nature of landscaping, cooling towers, and parking structures for the related projects is not known. The Project's water consumption for these ancillary functions is approximately 2 percent of the total water consumption. It is assumed that the 2 percent proportion would be similar for the related projects.

SOURCE: ESA, 2018. Related projects are those identified in Chapter III, *General Description of Environmental Setting*, of this Draft EIR.

As discussed with respect to the Project impacts above, LADWP expects to have a reliable supply of up to 675,700 afy of water in 2040 to service an estimated demand of 675,700 afy based on anticipated growth (or an estimated demand of 565,600 afy with implementation of all existing and planned future water conservation measures).⁶⁴ Thus, the supply exceeds the demand by 110,100 afy. This projection of residual supply is based on SCAG projections that account for all development anticipated to occur with service area through 2040. Therefore, the related projects would be accounted for within the calculation. However, for comparison it may be noted that the cumulative demand of 10,201 afy would amount to approximately 9 percent of the residual 2040 supply in excess of 2040 demand.

In addition, the WSA found that: (1) the Project would be consistent with the demographic projections for the City in the 2016-2040 RTP/SCS; (2) the Project's water demand has been accounted for in the City's overall total demand projections in the LADWP 2015 UWMP; and (3) LADWP water supplies would be adequate during normal, single-dry and multi-year dry years to meet future cumulative demand through 2040. LADWP Water Supply Assessments are based on projections which rely on SCAG growth forecasts through 2040. This methodology allows LADWP to capture development from all related projects anticipated to occur within the entire service area through 2040, inclusive of such related projects as the limited subset of projects accounted for in Table IV.O.2-5. Furthermore, in accordance with LADWP requirements, each related project, as well as all projects in the LADWP service area, are required to obtain will-serve letters from LADWP, proving that each project can be supplied with water from the municipal system.

Compliance of the Project and future development projects with regulatory requirements that promote water conservation such as the LAMC, including the City's Green Building Code, which is periodically updated to meet increasing efficiency requirements, would also assist in assuring that adequate water supply is available on a cumulative basis.

Based on the above, there would be sufficient domestic water supplies available to serve the Project as well as the related projects from existing and projected future LADWP water supplies; and no new or expanded water entitlements or resources would be required. As such, cumulative impacts to water supply would not be significant. No mitigation measures are required.

f) Mitigation Measures

Project-level and cumulative impacts on water supply and infrastructure would be less than significant. No mitigation measures are required.

g) Level of Significance after Mitigation

Not applicable as impacts are less than significant without mitigation.

⁶⁴ Los Angeles Department of Water and Power, 2015 UWMP, pages ES-23.

Chapter V

Alternatives

1. Introduction

Under the California Environmental Quality Act (CEQA), and as indicated in California Public Resources Code (PRC) Section 21002.1(a), the identification and analysis of alternatives to a project is a fundamental aspect of the environmental review process. Specifically, PRC Section 21001 states, in part, that the environmental review process is intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives which will avoid or substantially lessen such significant effects. Guidance regarding the definition of project alternatives is provided in State CEQA Guidelines Section 15126.6(a) as follows:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives which are infeasible.

The State CEQA Guidelines emphasize that the selection of project alternatives be based primarily on the ability to reduce significant impacts relative to the proposed project, “even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.”¹ The State CEQA Guidelines further direct that the range of alternatives be guided by a “rule of reason,” such that only those alternatives necessary to permit a reasoned choice are analyzed.²

In selecting project alternatives for analysis, potential alternatives should be feasible. The State CEQA Guidelines Section 15126.6(f)(1) explains that:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent

¹ CEQA Guidelines, Section 15126.6(b).

² CEQA Guidelines, Section 15126.6(f).

can reasonably acquire, control or otherwise have access to the alternative site.

Beyond these factors, the State CEQA Guidelines require the analysis of a “no project” alternative and, depending on the circumstances, evaluation of alternative location(s) for the project, if feasible. An environmentally superior alternative is to be identified from among the alternatives evaluated. Based on the alternatives analysis, an environmentally superior alternative is to be designated. In general, the environmentally superior alternative is the alternative with the least adverse impacts on the environment. If the environmentally superior alternative is the “no project” alternative, the Environmental Impact Report (EIR) shall also identify another environmentally superior alternative among the other alternatives.³

Section 15126.6(d) of the State CEQA Guidelines further states that alternatives analysis need not be presented in the same level of detail as the assessment of the proposed project. Rather, the EIR is required to provide sufficient information to allow meaningful evaluation, analysis and comparison with the proposed project. If an alternative would cause one or more significant impacts in addition to those of the proposed project, analysis of those impacts is to be discussed, but in less detail than for the proposed project.

2. Objectives of the Project

Chapter II, *Project Description*, of this Draft EIR sets forth the Project’s underlying purpose and a list of Project Objectives defined by the Applicant and the Lead Agency, as follows:

Objective 1: Employ smart growth strategies and maximize the utilization of the Project Site with a Transfer of Floor Area Ratio (TFAR) to provide high-density, high-rise housing and public benefits in South Park with accessibility to existing infrastructure and alternative transportation modes in a High Quality Transit Area/Transit Priority Area.

Objective 2: Provide infill housing in an employment rich, mixed-use area, improving the jobs/housing ratio of the Downtown area in accordance with state, regional and local laws and policies supporting the reduction of vehicle miles traveled (VMTs), air quality emissions, greenhouse gas (GHG) emissions, including, but not limited to Assembly Bill (AB) 32, Senate Bill (SB) 375, Southern California Association of Governments’ (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS), and the City of Los Angeles’ Green New Deal. .

Objective 3: Develop a mixed-use development with ground floor retail, public art and a publicly accessible plaza that enhances the quality of the pedestrian environment and that supports connectivity to shopping, restaurants and the activities occurring at

³ CEQA Guidelines, Section 15126.6(e)(2).

nearby cultural, commercial and entertainment venues, including LA LIVE, Staples Center, and the Convention Center.

Objective 4: Further the General Plan Framework Element's goal of enhancing the livability of neighborhoods by building an architecturally significant high-rise development in the South Park neighborhood that provides innovative design elements and distinctive architectural features, such as tower open space cut-outs, that will upgrade the quality of development and the visual character of the South Park neighborhood and that will add another interesting landmark feature to the developing Downtown skyline.

Objective 5: Create an environmentally sensitive development by incorporating sustainable and green building design and construction to promote resource conservation, including waste reduction, efficient water management techniques, and conservation of energy to achieve Leadership in Energy and Environmental Design (LEED) Gold certification.

Objective 6: Construct an economically viable development that provides short- and long-term employment opportunities, tax revenue for the City, and a substantial investment in Los Angeles.

3. Alternatives Selected for Analysis

As described above, according to State CEQA Guidelines Section 15126.6(a) the purpose of analyzing project alternatives is to identify alternatives that “...*would avoid or substantially lessen any of the significant effects of the project...*” As shown in Chapter IV, *Environmental Analyses*, of this Draft EIR, the Project would not have significant long-term impacts due to Project operations that would require consideration of alternatives that would reduce such impacts. However, the Project would have intermittent short-term significant noise impacts during the Project's construction phase that cannot be avoided through feasible control measures. Accordingly, in addition to the No Project Alternative that is required by the State CEQA Guidelines, two additional build alternatives were evaluated that would reduce the level of the Project's significant short-term construction noise impact. The two build alternatives would also reduce the Project's non-significant impacts.

The following three alternatives were selected for detailed analysis, as discussed further below:

1. **Alternative 1, No Project/No Build – Existing Buildings with Increased Utilization Program.** Alternative 1 is included pursuant to Section 15126.6(e) of the State CEQA Guidelines to allow decision makers to compare the impacts of approving a proposed project with the impacts in the foreseeable future of not approving that project. Under this Alternative, the Project would not be developed, and utilization of the existing buildings on the Project Site would be increased with more intensive businesses, similar to other street-level store fronts in the Project Site vicinity.
2. **Alternative 2, Reduced Density – FAR of 6:1 (No TFAR).** Alternative 2 would provide the same uses as the Project in a configuration similar to that of the Project,

with a residential tower located atop a podium with residential units and parking above street-level commercial uses. The Alternative includes five levels of parking, including four levels in the podium below the residential units and one subterranean level. The number of residential units would be reduced from 794 units to 300 units, but the ground-level commercial uses would be similar at 12,504 square feet of retail/restaurant uses. The Alternative would not exercise the purchase of development rights from a donor site through the application of TFAR provisions. The Alternative would have an FAR of 6:1 in contrast to the Project's FAR of 13:1.

3. **Alternative 3. Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1 (No TFAR).** Alternative 3 would provide increased commercial uses at the ground level, with 25,000 square feet of retail/restaurant uses in contrast to the Project's 12,504 square feet. This Alternative would also include 315 Senior Housing units. The residential units would be included in a twelve-story building with nine residential stories above one ground level of commercial activity and two above-ground parking levels. The Alternative would also include three subterranean parking levels. The Alternative would not exercise the purchase of development rights from a donor site through the application of TFAR provisions. The Alternative would have an FAR of 6:1 in contrast to the Project's FAR of 13:1.

4. Alternatives Considered and Rejected

Section 15126.6(c) of the State CEQA Guidelines requires that an EIR identify alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the State CEQA Guidelines, the following factors may be used to eliminate alternatives from detailed consideration: the alternative's failure to meet most of the basic Project Objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts. Alternatives that have been considered and rejected as infeasible are discussed below.

a) Off-Site Location Alternative

Section 15126.6(f)(2) of the State CEQA Guidelines provides guidance regarding consideration of one or more alternative locations for a proposed project. The "key question" and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR." If no feasible alternative locations exist, the EIR must disclose the reasons for this conclusion. Among the factors that may be considered when addressing the feasibility of an alternative site is suitability, economic viability, availability of infrastructure, general plan consistency, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site.

The Project would not have significant long-term project-level impacts that would require consideration of an alternative site. Therefore, only an alternative site that would only potentially avoid the Project's short-term, intermittent, construction noise impact needs to

be considered. To avoid the Project's significant construction noise impact, an alternative site would have to be found that is of comparable size to the Project Site and is located in an area identified as a High Quality Transit Area (HQTa) and/or a Transit Priority Area (TPA), but is not located adjacent to sensitive uses, and that would not result in new impacts as compared to those occurring at the Project Site. Such a Site is not readily available in the urban areas of Los Angeles. There is no evidence that moving to a nearby block would reduce impacts since it would potentially shift the significant short-term construction noise impacts to other sensitive receptors.

In addition, the property is under the ownership and control of the Project Applicant. Substantial resources have been invested to purchase the land, design the Project and conduct the environmental analyses for the Project at the current Project Site. Pursuing development of the Project at another location would present a financial loss previously invested by the Project Applicant, due to investments to date and those needed to design a new project and restart the entitlement process, without apparent benefit to the environment.

b) Hotel Uses Alternative

Development of a hotel use on the Project Site was considered but rejected. A hotel use would generate more automobile trips and would therefore create greater traffic and air quality impacts than the Project's residential development.⁴ Moreover, construction of a Hotel Use Alternative would likely create the same significant construction noise impact as the Project, because that impact is a result of the operation of construction equipment rather than the uses that would occur within the completed building. The maximum noise level on a given day of construction, which is the basis of the analysis, would be similar to that of the Project, as a hotel development would include excavation within a similar site area and a large massing of above-ground structure.

c) Commercial/Office Uses Alternative

Development of a commercial or office use on the Project Site was considered but rejected. The Project is consistent with the General Plan and zoning designations, which encourage high-density residential uses within a substantially residential-oriented community in South Park to support and complement the nearby regional entertainment, office, and business districts. As such, additional office space would be better suited further north within the business district, and a large shopping complex would not be in

⁴ For example, a residential unit of approximately 900 square feet would generate approximately 2.07 daily trips, 0.21 AM Peak Hour Trips and 0.19 PM Peak Hour Trips. [Based on ITE 222 rates of 2.07 trips per day, 0.21 AM peak hour trips, and 0.19 PM peak hour trips per unit.] Two hotel rooms in approximately the same amount of space would conservatively generate 10.98 daily trips, 0.70 AM peak hour trips, and 0.80 PM peak hour trips. [Based on ITE 310 rates of 5.49 trips per day, 0.35 AM peak hour trips, and 0.40 PM peak hour trips per hotel room. This is a conservative rate based on an illustrative case study of one project in a Central City area. The general hotel rate for a larger variety of generalized hotel conditions would be 8.35 trips per day, in contrast to the more conservative example of 5.49 trips per day used in this example.]

keeping with the mixed-use, ground level retail that is occurring in South Park. Furthermore, a commercial or office use would generate substantially more trips than the Project, and would therefore create greater impacts for a similarly sized commercial project.⁵ In addition, the size and location of the Project Site is not conducive to the provision of major commercial activity because the Project Site is limited in size, located within the South Park residential neighborhood, and notably located adjacent to other existing residential developments. Also, development of commercial or office uses would require a notable amount of excavation and building size, adjacent to the same residential uses as the Project, and would therefore not avoid the Project's significant construction impact. As such, the Commercial/Office Uses Alternative would not achieve a reduction in the Project's impacts.

5. Analysis Format

In accordance with State CEQA Guidelines Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be less than, similar to, or greater than the corresponding impacts of the project. Furthermore, each alternative is evaluated to determine whether the Project Objectives, identified in Chapter II, *Project Description*, of this Draft EIR would be substantially attained by the alternative. The evaluation of each of the alternatives follows the process described below:

- A description of the alternative.
- The net environmental impacts of the alternative before and after implementation of reasonable mitigation measures for each environmental issue area analyzed in the EIR are described. Where applicable, the evaluation is divided between temporary impacts that would occur during the Project's construction phase and impacts that would occur during the Project's operational phase.
- Post-mitigation and less than significant environmental impacts of the alternative and the Project are compared for each environmental topic area. Where the impact of the alternative would be clearly less than the impact of the Project, the comparative impact is said to be "less." Where the alternative's net impact would clearly be more than the Project, the comparative impact is said to be "greater." Where the impacts of the alternative and Project would be roughly equivalent, the comparative impact is said to be "similar." Where the impacts of the alternative would be the same as the Project, the comparative impact is said to be the 'same'. The evaluation also documents whether, as compared to the Project, an impact would be entirely avoided, whether a significant impact could be reduced to a less than significant level, or whether a significant unavoidable impact would be feasible to mitigate to a less than significant

⁵ For example, a residential unit of approximately 900 square feet would generate approximately 2.07 daily trips (based on Institute of Transportation Engineers [ITE] 222 rates of 2.07 trips per day per unit). The daily trips for approximately 900 square feet of retail uses is approximately 34 daily trips [Based on ITE class 820 rate of 37.75 trips per 1,000 square feet]. The daily trips can be much higher with e.g. high turnover restaurants where the number of trips for 900 square feet would be 101 daily trips (based on ITE class 931 rate of 112.18 trips per 1,000 square feet).

level.

- The comparative analysis of the impacts is followed by a general discussion of the extent to which the underlying purpose and Project Objectives are attained by the alternative.

At the end of the discussion of each alternative, a relative comparison of the alternative's impacts and consistency with Project Objectives is provided. Pursuant to State CEQA Guidelines Section 15126.6(e)(2) an "Environmentally Superior Alternative" is identified. Finally, a table is provided that compares the level of the Project's impacts to the level of each of the alternative's impacts, by environmental topic.

6. Alternatives Analysis

a) **Alternative 1: No Project/No Build – Existing Buildings with Increased Utilization Program.**

(1) Description of the Alternative

In accordance with the State CEQA Guidelines, the No Project/No Build Alternative consists of the circumstance where the Project would not proceed and the existing setting would be maintained. Section 15126.6(e)(3)(B) of the Guidelines states that, "in certain instances, the No Project Alternative means 'no build' wherein the existing environmental setting is maintained." In accordance with the State CEQA Guidelines, "the no project analysis shall discuss the existing conditions..., as well as what would be reasonably 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."

As summary of the Project is shown in **Table V-1, Alternative 1 – No Project - Site Occupancy Assumptions**.

As reflected in Table V-1, under Alternative 1, it is assumed that the existing buildings would be rented to full capacity, and, per recent market trends and existing conditions in the South Park area, would over time convert to retail and restaurant uses. No new floor area would be added; and no new on-site parking would be provided. The demolition of the existing buildings, consisting of five single-story commercial buildings, would not occur under Alternative 1. However, interior tenant improvements and minor exterior construction would be made for building maintenance and accommodating new tenants.

The Project, consisting of the 70-story high-rise tower, would not be constructed on the Project Site. The ground-level Plaza with streetscaping, landscaping, and a public art display, would not be developed under Alternative 1.

TABLE V-1
ALTERNATIVE 1 – NO PROJECT - SITE OCCUPANCY ASSUMPTIONS

	Existing Site Uses ^a (square feet)	No Project –Existing Buildings with Increased Utilization Program (square feet)	Difference (square feet)
Retail^b	5,171	26,738	+21,567
Restaurant^c	0	8,913	+8,913
Light Manufacturing	14,653	0	-14,653
Vacant	15,827	0	-15,827
Total	35,651	35,651	0

^a Based on the Site occupancy at the time of the Notice of Preparation (NOP) and the basis for the analysis of existing use impacts in this Draft EIR.

^b Assumes that the range of uses would be consistent with ITE 820 Shopping Center uses, the same as accounted for in the analysis of the Project.

^c Assumes that restaurant use would be for quality restaurants, ITE 931, the same as accounted for in the analysis of the Project.

(2) Environmental Impacts

(a) Aesthetics

SB 743 (PRC Section 21099(d)) provides that aesthetic impacts of residential and mixed-use residential projects on an infill site within a TPA shall not be considered significant impacts on the environment, pursuant to CEQA. The City's Zoning Information (ZI) File No. 2452 provides further instruction concerning the definition of transit priority projects and the analysis of aesthetics impacts that are consistent with PRC Section 21099(d). As the Project meets these qualifications, the Project would not result in significant aesthetic impacts. However, Section IV.A, *Aesthetics*, of this Draft EIR does include, for informational purposes only, an analysis of the Project's impacts based upon thresholds taken from the checklist items in Appendix G to the State CEQA Guidelines; i.e., reflecting the aesthetic impacts that would occur from the Project if PRC Section 21099(d) was not in effect. The following discussion compares the aesthetics impacts of Alternative 1 to those disclosed in the Project's informational analyses relative to scenic vistas, scenic resources, regulations regarding scenic quality, and light and glare.

(i) Scenic Vistas

The Project is located in Downtown Los Angeles, which provides an urban skyline that is considered a component of a scenic vista for passers-by and viewers from locations throughout the Los Angeles basin and surrounding hillside areas. The only public vantage points in the Project Site vicinity are adjacent street corridors and elevated freeways. The existing single-story buildings on the Project Site do not allow for broad or panoramic views of scenic resources across the Project Site from the adjacent public streets. Views from the street levels are blocked by buildings and limited to street corridors. Alternative

1 would not change the existing conditions and would have no impact on views of scenic resources.

In comparison, the Project would replace the existing buildings with an architecturally distinctive high-rise building that would contribute to the increases of residential development and taller development that are occurring in the South Park neighborhood. As viewed from public vantage points such as freeways, and more distant hillside areas, the Project would not block views of scenic vistas. In addition, the Project would form a component of the City's high-rise skyline and would add additional depth, articulation and interest to the skyline as viewed from the freeway approaches to the Downtown. Also, it would not block views of local urban scenic resources in the Project vicinity.

The Project would have no impact on scenic vistas pursuant to SB 742 and ZI File No. 2452. Alternative 1 would have no view impact, because no new buildings would be constructed. Therefore, the impact under Alternative 1 would be less than under the Project.

(ii) Scenic Resources

Alternative 1 would not result in any changes to the Project's aesthetic setting and would not have an impact on the area's scenic resources.

Neither the Project Site nor the general vicinity of the Project Site contains scenic resources, such as trees or rock outcroppings, and neither is located along a State-designated scenic highway or associated view corridor. The nearby scenic resources in the Downtown area include such features as public plazas, art or gardens; and notable design elements along the streets, e.g., historical buildings. Given the heavily built nature of the Downtown area, these scenic resources are located within the development grid and would not be adversely affected by development within the Project Site.

Pursuant to SB 743 and ZI File No. 2452, the Project would have no impact on scenic resources. Alternative 1 would have no impact to scenic resources because no new buildings would be constructed. Therefore, the impact under Alternative 1 would be less than under the Project.

(iii) Scenic Quality Regulations

Under Alternative 1, the Project Site would remain in its current underutilized condition, devoid of landscaping or pedestrian enhancements. There would be no new development, nor would any construction activity be required at the Project Site. Alternative 1 would operate the existing on-site one-story buildings which do not contribute active street features to the visual character of Downtown.

In contrast, the Project would provide a new 70-story, 751,777 square-foot building, with 794 residential units and ground level retail/restaurant uses. As such, the new development would be subject to plans and regulations that pertain to the scenic quality of the Downtown vicinity. These include the General Plan Framework, and the Community

Plan (Chapter V, Urban Design inclusive of and the Downtown Design Guide as implemented through the Los Angeles Municipal Code [LAMC]). The scenic quality of the Project vicinity is shaped by the aesthetic character and massing of its buildings, and its pedestrian character interspersed with a number of urban features that contribute to scenic quality, e.g., including public plazas, art or gardens, consistent design elements along streets, pedestrian amenities, and landscaped medians or park areas.

The Project would contribute to the high-rise character of the Downtown, provide a landscaped plaza, sidewalk improvements, and landscaping that would enhance the activity and visual character of the Project Site and its surroundings. It would include such design features as deep setbacks, reduced effects of contrast with neighboring properties, and provide space around the taller building elements. The Project's ground level facades would be organized around the pedestrian plaza with articulation, decorative landscaping and art displays, and a mix of paneling and glass to provide varied textures while allowing highly visible interiors consistent with the ground level restaurant/retail uses, and an activated pedestrian milieu. The Project would also include AES-PDF-2 to ensure that the Project's architectural motifs would be integrated into the parking structure frontages facing the alley and adjacent streets. As such, the Project would be consistent with and would not conflict with the implementation of the policies and design standards within the regulatory documents.

Pursuant to SB 743 and ZI File No. 2452, the Project would have no impact regarding consistency/conflicts with regulations to protect the scenic quality of Downtown. Alternative 1 would not include development that is subject to review per the regulatory documents for the protection of scenic quality. Therefore, the impact under Alternative 1 would be less than under the Project.

(iv) Light and Glare

Under Alternative 1, the existing light manufacturing and retail use of the Project Site would not change, and the Project Site would continue to be occupied primarily during the daytime. As such, the Project Site would maintain the same lighting conditions as currently exist.

In comparison, the Project would add more illuminated signage associated with ground level uses. In addition, the Project's residential tower would introduce more visible light sources as viewed from a distance. Glass used in exterior façades would be low reflective in order to minimize daytime glare and the aesthetic screening required under AES-PDF-2 would provide shielding of automobile lights emanating from the Project's parking structure. Project lighting, including architectural lighting, light emanating from the building interiors, lighting of the proposed residential amenities on the Podium deck, security lights, and illuminated signage would not create a new source of light or glare that would substantially alter the character of off-site areas or that would result in substantial light spill/or glare onto adjacent light-sensitive receptors. As such, the Project would not exceed the L.A. CEQA Threshold Guide standard regarding new sources of substantial light and glare.

Pursuant to SB 743 and ZI File No. 2452, the Project would have no impact regarding light and glare. Alternative 1 would not introduce any new light or glare sources and is considered to have no impact, and less impact than the Project.

(b) Air Quality

(i) Consistency or Conflict with Implementation of Air Quality Plans

Alternative 1 would involve small amounts of construction for maintenance and tenant improvements. Alternative 1 would allow for leasing of the current vacant spaces within the existing building. Such leasing would result in minor increases in on-site employment, energy consumption, and transportation. Further, the associated increases in air emissions due to the conversion of existing vacant space or existing light manufacturing space to retail/restaurant space would be negligible; and would have no direct impact on regional or local air quality management plans, such as the South Coast Air Quality Management District (SCAQMD) 2016 Air Quality Management Plan (AQMP) and the City's General Plan emission reduction policies. However, Alternative 1 would keep the Project Site in its current low density condition, which is not supportive of strategies for creating transit-efficient growth in the region and City.

In comparison, the Project would generate net new emissions, but would not cause the South Coast Air Basin's (Air Basin) criteria pollutant emissions to worsen so as to impede the objectives of the 2016 AQMP. The Project would be consistent with the AQMP in its incorporation of appropriate control strategies for emissions reduction during construction. Further, the Project would be consistent with the applicable growth projections and control strategies used in the development of the AQMP and would not jeopardize attainment of the air quality levels identified in the Plan. During operation, the Project would also incorporate control strategies set forth in the AQMP such as location efficiency, increased density, transit accessibility, improved development design, and other measures. The Project would also be consistent with the City's growth projections and policies in the General Plan Air Quality Element for achieving emission reduction goals. As such, the Project impact with respect to consistency with the AQMP and General Plan air quality policies would be less than significant.

As Alternative 1 would generate only negligible construction and net operations emissions, Alternative 1 would be consistent with applicable air quality management plans, even though it would be less supportive of strategies for creating transit-efficient growth in the region and City than the Project. However, because Alternative 1 would produce fewer emissions than the Project, its impact would be considered less than under the Project.

(ii) *Cumulative Increase of Criteria Pollutants*

(a) Construction

Alternative 1 would not involve construction that would increase its building area; however, Alternative 1 would involve small amounts of construction for maintenance and tenant improvements. Therefore, minimal amounts of added criteria pollutant emissions would be generated.

In comparison, the Project's construction phase has the potential to generate net new emissions through the use of heavy-duty construction equipment, construction traffic, fugitive dust emissions, paving operations, and the application of architectural coatings. Construction-related daily emissions would not exceed the SCAQMD numeric indicators of significance, with the exception of short-term and temporary NO_x emissions during the one-day continuous concrete pour phase. The NO_x emissions result primarily from on-site construction equipment, and on-road hauling and concrete truck emissions generated during truck travel and idling during the one-day continuous concrete pour phase. Mitigation Measure AQ-MM-1 would require limits on the equipment used and logistics followed for implementation of the one-day concrete pour. With the mitigation measure, construction construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would not exceed the SCAQMD numeric indicators of significance. Therefore, the Project's impact with respect to the violation of an air quality standard would be less than significant with mitigation.

Because Alternative 1 would involve negligible construction activities and is considered to have no impact relative to threshold standards, it would have a less than significant impact and less of an impact than the Project.

(b) Operation

No increase in leasable building area would occur under Alternative 1; however, an increase in operational emissions would likely occur from the conversion of vacant space and light manufacturing use to retail/restaurant space. Given the small amount of development, the increase would be negligible.

In comparison, the Project would generate net new air emissions due to the on-site stationary sources, mobile sources and energy consumption associated with operation of the Project's 794 residential units and 12,504 square feet of restaurant/retail use. However, the amount of emissions generated would be below the regional numeric indicators and regional emissions would be less than significant prior to mitigation.

Since Alternative 1's increase in new operational emissions would be negligible, the impact related to air quality standards would be less under Alternative 1 than under the Project, but would, like the Project, be less than significant.

(iii) *Exposure of Sensitive Receptors to Pollutant Concentrations*

(a) Construction

Alternative 1 would result in no impact regarding new emissions due to construction of new building area; however, Alternative 1 would include small amounts of construction for maintenance and tenant improvements that would generate minimal amounts of criteria pollutant emissions

In comparison, the Project's construction would generate new emissions during its construction phases. Based on the Project's phasing and equipment schedule, compliance with SCAQMD Rule 403 and Rule 1113, implementation of AQ-MM-1 and the incorporation of AQ-PDF-2, which requires the use of construction equipment that meets stringent Tier 4 Final emissions standards as well as electric-powered and alternative-fueled generators if commercially available, the Project's maximum localized construction emissions for sensitive receptors would not exceed the localized screening indicators for criteria pollutants at adjacent sensitive receptor locations. As such, the Project's impact on sensitive receptors would be less than significant. Further, toxic air contaminant (TAC) emissions, including diesel particulate matter, would also be less than significant and would not pose an incremental health risk to sensitive receptors.

Alternative 1 would generate limited construction emissions and is considered to have less of an impact regarding exposure of sensitive receptors to air emissions than the Project. Like the Project, the impact of Alternative 1 would also be less than significant.

(b) Operation

Alternative 1 would cause an increase in operational emissions that would occur from activities associated with the conversion of existing vacant space or existing light manufacturing space to retail/restaurant space; however, this increase would be negligible.

In comparison, the Project's maximum localized operational emissions at sensitive receptors would not exceed the localized screening indicators for criteria pollutants, and would not require mitigation. Furthermore, Project operations would be required to comply with California Air Resources Board (CARB) and SCAQMD regulations that would ensure that the Project's emissions of TACs be less than significant. The Project's impact related to the formation of carbon monoxide (CO) hotspots would also be less than significant without the need for mitigation measures.

Alternative 1 would generate far fewer operational emissions than the Project. While Alternative 1 would add restaurant space that could include charbroiling, the amount of restaurant space would not be substantially larger than the amount of such space under the Project, and its generation of other health risk emissions would be minimal. As such, Alternative 1, as is the case with the Project, would have a less than significant impact.

(iv) *Other Emissions Affecting a Substantial Number of People*

Alternative 1 would include ground level development with retail/restaurant uses typical of other development within the vicinity of the Project Site that might produce emissions such as odor.

Likewise, the Project's mixed-use development, including residential and commercial uses, would generate emissions such as odors. The analysis of the Project's impacts notes that the impacts of emissions other than odor that might occur with the Project are addressed under the above air quality analyses. The Project would not include notable odor producing uses (e.g., industrial uses). Odors might emanate from waste generation and disposal (e.g., trash cans, dumpsters) and occasional minor odors generated during food preparation activities. Such odors are typical of uses within the vicinity, could be controlled and would be localized in the immediate Project vicinity, avoiding exposure to a substantial number of people.

As such, Alternative 1 and the Project would have a similar potential for generating other emissions and the number of people that would be subject to exposure. The impact of Alternative 1 regarding other emissions and the impact of the Project would be less than significant.

(c) *Cultural Resources*

(i) *Historical Resources (Architectural/Built Environment)*

Alternative 1 would not require the demolition of the five existing buildings, and would not require excavation into soils within or adjacent to the Project Site. None of the five existing buildings qualifies as an historical resource under State CEQA Guidelines Section 15064.5(a)(1) or (2), and none warrants consideration under State CEQA Guidelines Section 15064.5(a)(3). However, a historic water conveyance system (*Zanja* No. 8) is depicted on maps adjacent to and to the west of the Project Site, potentially within the mid-block alley. For the purposes of this Project, the City is treating *Zanja* No. 8 as an historical resource under State CEQA Guidelines Section 15064.5(a)(3).

In comparison, the Project would remove the five existing buildings, but as the existing buildings are not historical resources, the Project's removal of these buildings would not result in a direct impact on historical resources. Further, the Project would not have an indirect impact on historical resources. None of the historical buildings in the vicinity of the Project Site is located immediately adjacent to the Project Site, or would be physically affected by the Project's construction or operation. The Project's location, design, scale and massing would not obstruct historically or architecturally significant primary views to and from an adjacent resource that contributes to its eligibility as a historical resource, or be incompatible in scale, massing, materials or design with an adjacent historical resource such that its eligibility is substantially impaired.

The Project could potentially disturb subsurface resources related to the *Zanja* No. 8 or other as yet unidentified remnants of past activities at the Project Site during excavation. However, mitigation measures CULT-MM-1 through CULT-MM-5 require monitoring of excavation activities for the occurrence of resources, treatment of resources should they occur, reporting of finds should they occur as well as additional treatment and reporting requirements to address the specific characteristics of the *Zanja* No.8. These mitigation measures would reduce a potentially significant impact to historical resources or unique archaeological resources, as well as the *Zanja* No.8 conveyance system, to a less than significant level. Further, mitigation measure NOISE-MM-4 that would mitigate vibration impacts to residents across the alley would also reduce a potential vibration impact to the remnants of the *Zanja* No.8 should it be present within the alley to a less than significant level.

Since Alternative 1 would not cause any changes in existing buildings, it is considered to have no impact and would avoid the Project's mitigated impact on historical resources. As such, the impact with respect to historical resources would be less under Alternative 1 than under the Project.

(ii) *Archaeological Resources*

Alternative 1 would not require any excavation activities that could potentially encounter previously undiscovered archaeological resources.

While no known archaeological resources are located on the Project Site, the Project Site is considered to have sensitivity for the occurrence of subsurface archaeological resources that could qualify as unique archaeological resources under CEQA, due to past activity on the Project Site and the location of the Project setting in the location of nearby water bodies. These could include both prehistoric archaeological resources as well as historic-period resources related to previous residential use of the Project site. In addition, *Zanja* No. 8 is depicted on maps as adjacent to and to the west of the Project Site, potentially within the mid-block alley. For the purposes of this Project, the City is treating the *Zanja* No. 8 as a historical resource under State CEQA Guidelines Section 15064.5(a)(3), and *Zanja* No. 8 may also qualify as a unique archaeological resource.

Development of the Project could potentially disturb subsurface archaeological resources. Under the Project, potentially a significant impact to archaeological resources would be mitigated to a less than significant level. However, because Alternative 1 would not require any excavation, it is considered to have no impact as compared to the Project's less than significant impact.

(iii) *Human Remains*

Alternative 1 would not require any excavation activities that could potentially encounter previously undiscovered human remains.

No human remains were identified during the pedestrian survey of the Project Site and no known human remains have been recorded within the Project Site or within a 0.50-mile radius. The Project Site has been previously disturbed by the original construction of the existing buildings; and if present, human remains would have likely been detected previously. However, although unlikely, Project grading and excavation into deeper previously undisturbed subsurface areas may encounter buried human remains. If such remains were to be encountered, they would be protected under applicable regulations. PRC Section 5097.98 requires notification of the County Coroner in the event of the unanticipated discovery of human remains and a prescribed protocol for their disposition in accordance with applicable regulations, notification of the California Native American Heritage Commission (NAHC) and subsequent tribal coordination if remains are determined to be of Native American descent.

However, because Alternative 1 would not require any excavation, it is considered to have no impact as compared to the Project's less than significant impact. As such, the impact with respect to human remains would be less under Alternative 1 than under the Project.

(d) *Energy*

(i) *Efficient Energy Consumption*

Alternative 1 would involve minor changes at the Project Site that might generate a negligible increase in demand for energy over existing uses during construction or operation. Alternative 1 would slightly increase the demand for energy due to the operation of more energy intensive retail/restaurant uses on the Project Site. Continued operation of the existing facilities would necessarily involve facility upgrades that would enhance the efficiency of energy consumption.

As the analysis of the Project's impacts concludes, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy requirements would not substantially affect local and regional supplies or capacity. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements such as the Title 24 standards and California Building Standards (CALGreen) Code. Consistent with the requirements for Environmental Leadership Development Projects (ELDPs), the Project would result in energy consumption reductions as it is a mixed-use development located on an urban infill site that would achieve LEED Gold certification; and incorporating design features that would reduce energy consumption.

Since Alternative 1 would not involve any new development and would require negligible increases in energy consumption, Alternative 1 would have a less than significant impact and less of an impact on energy consumption than the Project's less than significant impact.

(ii) *Conflict with Plans for Renewable Energy or Energy Efficiency*

The Project would comply with existing energy standards; would include a project design and building operations that incorporate energy-conservation measures beyond those otherwise required and would not conflict with adopted energy conservation plans. The Project would be designed to meet the United States Green Building Council (USGBC) LEED Gold Certification including energy performance optimization features such as reducing building energy demand by a minimum of 5 percent for new construction compared to the 2016 Title 24 Building Energy Efficiency Standards. Among other features it would installing energy efficient appliances that meet the United States Environmental Protection Agency (USEPA) ENERGY STAR rating standards or equivalent, incorporate heat island reduction strategies such as high-reflectance and vegetated roofs for the Project roof areas, provide water efficient fixtures and landscaping to reduce indoor water usage, and an heating, cooling and ventilation (HVAC) system that would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain.

By exceeding the regulatory standards, the Project would have a less than significant impact regarding the provisions of plans for renewable energy and energy efficiency. Alternative 1 would not be subject to review pursuant to these plans and therefore, would result in no impact. As such, the impact of Alternative 1 regarding renewable resources would be less than under the Project.

(iii) *Relocation or Expansion of Energy Infrastructure*

Alternative 1 would not change existing conditions, but it would generate some additional demand on existing energy infrastructure, due to the increased energy requirements associated with the new retail/restaurant uses that would operate on the Project Site.

The Project's electricity and natural gas demand is expected to represent a small fraction of the Los Angeles Department of Water and Power's (LADWP) and the Southern California Gas Company's (SoCalGas) energy supplies; and the service provider's existing infrastructure, and planned electricity and natural gas supplies would be sufficient to meet the Project's demand for electricity and natural gas. The Project would not result in an increase in demand for electricity or natural gas services that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Since Alternative 1 would not require a notable increase in energy demand, its impact on energy infrastructure would be less than that of the Project, and, like the Project, its impact would be less than significant.

(e) *Geology and Soils*

- (i) *Adverse effects associated with surface fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides.*

Since Alternative 1 would not involve any substantial new development at the Project Site, it would not cause potential substantial adverse effects related to seismic risk.

Although located in the seismically active Southern California region, which is prone to ground shaking and seismic activity, the Project Site is not bisected by an active or potentially active fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. Both the Project's building and Alternative 1's existing buildings would/do derive support from the underlying bedrock, such that fault rupture and liquefaction would not be/are not potential hazards.

However, because the Project Site is near known active and potentially active faults, both the new building to be developed under the Project would be and Alternative 1's existing buildings are subject to strong seismic ground shaking. The Project would be designed to comply with regulatory requirements according to the preparation of a Final Geotechnical Report with final design recommendations prepared by a California-registered geotechnical engineer and submitted to the Los Angeles Department of Building and Safety (LADBS) for review prior to issuance of a grading permit. Through compliance with regulatory measures, development of the Project would not exacerbate existing geological conditions that might cause adverse effects, and its impact would be less than significant.

As Alternative 1 would not involve the development of any new buildings and therefore would not exacerbate geologic conditions, it is considered to have no impact as compared to the Project's less than significant impact. As such, Alternative 1 would have no impact with respect to adverse effects associated with surface fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides.

(ii) *Soil Erosion or Loss of Topsoil*

Alternative 1 would not involve new development activities requiring grading or exposure of soil to rain or wind.

In comparison, construction of the Project would increase soil exposure and risk of soil erosion. Construction activities for the Project would include excavation of approximately 80,520 cubic yards (cy) of soil, all of which would be exported off-site, and maximum excavation depths of approximately 64 feet below ground surface (bgs). These construction activities would have the potential to expose the underlying soils. The Project, however, would be required to comply with existing SCAQMD, Los Angeles Regional Water Quality Control Board (LARWQCB), and Building Code regulations for fugitive dust and erosion control, which would ensure that the Project would not result in

substantial erosion or the loss of topsoil. During operations, the Project Site would be covered by hardscape and would be landscaped. Compliance with existing regulations that mandate preparation and implementation of dry and wet weather erosion control plans would ensure that soil erosion would be less than significant under the Project.

As Alternative 1 would not involve any construction of new buildings, it is considered to have no impact as compared to the Project's less than significant impact. As such, the impact regarding to soil erosion would be less under Alternative 1 than under the Project.

(iii) Unstable Geologic Units

Alternative 1 would not include any new development that would exacerbate the existing risk of exposing people or structures to unstable geologic units, such as liquefaction or lateral spreading.

Although unstable geologic units are not present on the Project Site, all required excavations for the Project would be sloped and properly shored in accordance with the applicable provisions of the California Building Code (CBC) incorporated into the City's Building Code. These regulatory measures would minimize the potential for site hazards from unstable geologic conditions during excavation activities. Through compliance with regulatory measures, as implemented and approved by through the preparation of a Final Geotechnical Report, the Project impact with respect to unstable geologic units would be less than significant.

Alternative 1 is considered to have no impact as compared to the Project's less than significant impact. As such, the impact regarding unstable geologic units would be less under Alternative 1 than under the Project.

(iv) Expansive Soils

Alternative 1 would not include any new development that would exacerbate the risk of exposure of people or structures to geologic hazards such as expansive soils.

The Project Site is not currently underlain by soils with the potential for expansion and corrosion. Even so, verification of soil conditions and appropriate final design recommendations would be included in the Final Geotechnical Report that would require approval by LADBS prior to issuance of a grading permit.

As Alternative 1 would not involve any new structures; and as expansive soils are not present at the Project Site, the Project would also have no impact related to expansive soils. The Impact of Alternative 1 regarding expansive soils and the impact of the Project would be similar.

(v) *Support for Septic Tanks or Alternative Waste Water Disposal where Sewers are not Available*

The Project Site is located in a developed area of the City, which is served by a wastewater collection, conveyance, and treatment system operated by the City. Furthermore, no septic tanks or alternative disposal systems are necessary for the Project, nor would they be implemented under Alternative 1. Therefore, no impacts would result.

(vi) *Unique Paleontological Resources and Geologic Features*

The Project Site is developed and contains no unique geologic features.

Alternative 1 would not require any excavation activities that could potentially encounter paleontological resources.

In comparison, the Project would require substantial excavation within the Project Site during construction for subterranean parking and excavation shoring at depths up to 64 feet bgs, which would intercept older alluvium determined to have a high sensitivity for fossils. As a result, construction of the Project could directly or indirectly injure or destroy a unique paleontological resource, and its impact on paleontological resources are potentially significant. However, implementation of mitigation measures GEOL-MM-1, GEOL-MM-2, GEOL-MM-3 and GEOL-MM-4, which would require monitoring of excavation activities for the occurrence of resources, treatment of resources should they occur, and reporting of finds should they occur, would reduce the Project's potential impact on paleontological resources to less than significant levels.

However, Alternative 1 would not require any excavation, and is considered to have no impact to paleontological resources as compared to the Project's less than significant impact with mitigation. As such, the impact of Alternative 1 with respect to paleontological resources would be less than under the Project.

(f) *Greenhouse Gas Emissions (Emissions Impacts and Potential Conflicts with Plans for Reducing Emissions)*

Alternative 1 would not involve the development of any new buildings and would involve only slightly increased occupancy of the Project Site. Therefore, any increase in GHG emissions would be negligible. Tenant improvements could include upgrades to building facilities that would incorporate current building energy efficiency standards, however, such reductions, should they occur, would be limited to such items as updating the efficiency of fixtures in the older buildings without benefit of substantial updating of the buildings. Further, Alternative 1 would maintain the Project Site with its current low density development.

As calculated for the Project, approximately 751,777 square feet of floor area would generate approximately 8,654 MTCO_{2e} net increase in operational emissions (inclusive

of amortized construction emissions), assuming the implementation of project design features (PDFs). The Project would incorporate AQ-PDF-1, which includes green building features in excess of those required under standard regulations. These would include enhance building energy efficiency and promote non-motorized alternatives to conventional fuel automobiles. The Project would also implement project design feature WS-PDF-1 to reduce water consumption, that would incrementally reduce indirect GHGs associated with energy consumption occurring during water extraction, conveyance and treatment. As such, the Project would be consistent with, and would not conflict with, applicable strategies outlined in CARB's 2017 Climate Change Scoping Plan, SCAG's 2016-2040 RTP/SCS, Green New Deal (Sustainable City pLAn 2019), and Green Building Code. These plans include guidelines for reducing GHG emissions and also encourage development patterns that support and encourage the use of alternative modes of transportation, thus reducing vehicle miles traveled.

Alternative 1's negligible increase in GHG emissions would be substantially less than that of the Project's. At the same time, Alternative 1 would not provide benefits of the Project that contribute to reducing long-term GHG impacts in the regional context. The impact of Alternative 1 would be less than under the Project, but like the Project, the GHG emissions impact of Alternative 1 would be less than significant.

(g) *Hazards and Hazardous Materials*

(i) *Routine Transport, Use, or Disposal of Hazardous Materials*

Alternative 1 would not include the development of any new buildings or involve the transport, use, or disposal of hazardous materials not occurring under existing conditions.

The Project would require the use of products for construction and operation that are routinely used in performing everyday household and commercial activities consistent with regulations. It would not require the use of hazardous materials beyond these routinely used products and would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of such hazardous materials. The impact regarding hazardous materials would be less than significant under the Project.

However, because no new transport, use, or disposal of hazardous materials would occur under Alternative 1, it is considered to have no impact as compared to the Project's less than significant impact. As such, the impact with respect to use, transport, and disposal of hazardous materials would be less under Alternative 1 than under the Project.

(ii) *Upset and Accident Conditions*

Under Alternative 1 implementation of tenant improvements could result in exposure of construction workers to asbestos containing materials (ACMs) and lead-based paint (LBPs), should tenant improvements occur in the future. Such minor activity would be

subject to regulations regarding the identification, and where applicable, procedures for the collection, transport and disposal of ACMs and LBPs.

The Project's demolition and construction activities could potentially involve the release of existing airborne contaminants or low concentrations of volatile organic compounds (VOCs), and could potentially uncover existing soils contaminants and gases and existing ACMs and LBPs in the existing buildings. The Project would be subject to same regulations regarding the identification, transport and disposal of ACMs and LBPs as would Alternative 1. HAZ-MM-1 requires preparation of a Soils Management Plan (SMP) to ensure that all areas of the Project Site have been properly evaluated and to provide added guidance to contractors for appropriate screening, and management of potentially impacted or impacted soils that may be encountered during grading and excavation activities. To avoid the risk associated with removal of potential underground storage tanks (USTs) and related infrastructure, HAZ-MM-2 requires that earthwork activities in the vicinity of potential USTs be preceded by potholing prior to construction to verify the potential occurrence and characteristics of Project Site conditions. With compliance with existing regulations, and implementation of HAZ-MM-1 and HAZ-MM-2, the Project impact regarding risk of upset and accident would be less than significant.

Because Alternative 1 would only involve minor interior tenant improvements and would not involve any major demolition, excavation, or ground-altering construction activities on the Project Site, it is considered to have a less than significant impact and a lesser impact as compared to the Project's less than significant impact with mitigation.

(iii) Use of Hazardous Materials within One-quarter Mile of an Existing School

Alternative 1 would not involve excavation activity that would require the potential transport of hazardous materials from the Project Site. However, the implementation of tenant improvements could encounter ACMs and LBPs that would require transport to a hazardous materials dump site.

In comparison, the Project's more extensive excavation and construction activity could encounter hazardous materials that would require transport to off-site locations including VOCs as well as ACMs and LBPs, thereby potentially posing a threat to a nearby school, during potential transport from the Project Site. The Project Site is located approximately 0.17 miles from the LAUSD Los Angelitos Early Education Center and the LA Child Care and Development Council School, respectively. However, implementation of regulatory measures and HAZ-MM-1 would reduce such potential impact within one-quarter mile of an existing school to less than significant.

However, because Alternative 1 would involve limited, above grade improvements, it is considered to have a less than significant impact and less of an impact than the Project's less than significant impact with mitigation. As such, the impact regarding exposure to hazardous conditions within one-quarter mile of a school would be less under the Alternative 1 than under the Project.

(iv) *Hazardous Materials Database Listings*

Alternative 1 would not include development activities that might cause exposure to hazardous materials identified within a hazardous materials database.

The Project Site is included on one hazardous materials site list; however, no violations were listed for the use or disposal of hazardous materials and the database indicates that materials were disposed of previously. In the event that construction of the Project were to encounter hazardous materials in the soil, implementation of HAZ-MM-1 and HAZ-MM-2 would reduce this impact to a less than significant level.

No hazardous materials would be utilized in day to day operations of the Project other than the typical household, commercial, vehicle, pool and spa, and landscaping maintenance materials. These materials are not listed on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and therefore Project operations would not require future listing of the Project Site on such a list. The Project would not create a significant hazard to the public or the environment related to hazardous (listed) conditions, and the Project's impact would be less than significant in this regard.

However, because no development including soil removal would occur at the Project Site under Alternative 1, it is considered to have no impact, as compared to the Project's less than significant impact with mitigation. As such, the impact regarding listed hazardous materials would be considered less under Alternative 1 than under the Project.

(v) *Proximity to an Airport or Private Airstrip*

The two nearest airports to the Project Site are the Hawthorne Municipal Airport and Los Angeles International Airport, located approximately 9 miles and 10 miles to the southwest, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project Site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. Both the Project and Alternative 1 would result in no impact regarding airport-related safety hazards for people residing or working in the Project vicinity.

(vi) *Emergency Response/Evacuation Plans*

Neither Alternative 1 nor the Project includes a land use that would constitute or create a potential hazard to the community (such as an airport, oil refinery, or chemicals plant), or require the closure of any existing streets. Neither would represent a significant impediment to emergency response and evacuation of the local area. Land uses under the Project would not require a new, or interfere with an existing, risk management, emergency response, or evacuation plan. The Impact regarding emergency response plans would be less than significant. However, Alternative 1 would be smaller in scope and would continue to have activity at the Project Site with limited potential to contribute population or traffic during an emergency evacuation, and therefore would have less of an impact than that of the Project related to emergency response plans.

(vii) *Wildland Fire Hazards*

The Project Site is located in a highly urbanized area. No wildlands are present on the Project Site or in the surrounding area. Furthermore, the Project Site is not located within a City-designated wildfire hazard area, nor is it located within a State Responsibility Area or an area designated as a Very High Fire Hazard Severity Zone. Therefore, the Project and Alternative 1 would have no impact regarding the exposure of people or structures to direct or indirect risk involving wildland fires.

(h) *Hydrology and Water Quality*

(i) *Water Quality Standards and Groundwater Quality*

(a) Construction

Alternative 1 would not involve any development and, as such, would not result in surface or groundwater exposure to pollutants during construction activities. BMPs for stormwater runoff from existing impervious surfaces are not currently implemented under existing conditions and, as such, would not be implemented under the Alternative 1.

In comparison, under the Project, construction activities, such as earth moving, maintenance/operation of construction equipment, potential dewatering, and handling/storage/disposal of materials, could contribute to pollutant loading in stormwater runoff from the construction site. Also, exposed and stockpiled soils could be subject to wind and conveyance into nearby storm drains during storm events, and on-site water activities for dust suppression purposes could contribute to pollutant loading in runoff from the construction site. However, the Project's potential impact would be reduced to less than significant levels through compliance with regulatory requirements and BMPs, and Building Code grading procedures, which would ensure that Project runoff would not exceed water quality standards. As such, the Project impact with respect to construction phase water quality standards would be less than significant in contrast to Alternative 1, which would have no impact.

(b) Operations

During operation, the Project would implement a drainage collection and conveyance system that would detain and treat/filter runoff in compliance with the City's Low Impact Development (LID) Manual requirements to reduce the quantity of, and improve the quality of, rainfall runoff that leaves the Project Site. Therefore, the Project would result in an improvement in the existing water quality of stormwater runoff from the Project Site. As such, the impact with respect to operational water quality standards would be less than significant under the Project.

The Project would improve water quality of the developed site runoff compared to existing conditions, and these improvements would not occur under Alternative 1. Since Alternative 1 would not improve the runoff conditions at the Project Site, its impact could

be greater than that of the Project during operation, although, like the Project, its impact would still be less than significant.

(ii) *Changes in Groundwater Supplies or Recharge*

Alternative 1 would retain the Project Site in its mostly impervious state and would not change the existing effect on groundwater supplies or recharge.

Project operation would not involve groundwater withdrawal. As a recommended option, the Project's proposed on-site drainage system, with required LID Ordinance Best Management Practices (BMPs), may include a drywell system that would provide infiltration to the groundwater system, which would represent beneficial recharge. The Project would, at the least, not contribute to depletion of groundwater or interfere with recharge, and may potentially contribute to an increase in groundwater recharge.

While the Project may provide beneficial recharge that would not occur under Alternative 1, such recharge would be small, and is not guaranteed. The impact of Alternative 1 and the Project on groundwater are therefore considered to be similar, and in both cases, less than significant.

(iii) *Alteration of Drainage Pattern Resulting in Erosion, Siltation or Flooding*

Alternative 1 would not involve any development and, as such, would not result in a construction-related or operational-related change in drainage patterns resulting in erosion, siltation, or flooding. It would have no impact on the existing drainage pattern and conditions of the Project Site and would not result in flooding on- or off-site

In comparison, the Project's construction activities could contribute to erosion or siltation when soils are exposed during development of the Project Site. Construction activities for the Project would include excavation of approximately 80,520 cy of soil, all of which would be exported off-site, and maximum excavation depths of approximately 64 feet bgs. These construction activities would have the potential to temporarily alter existing drainage patterns and flows within the Project Site by exposing the underlying soils and making the Project Site temporarily more permeable. The Project, however, would be required to implement BMPs and erosion control measures to manage runoff flows and prevent pollution. With implementation of BMPs, the impact regarding drainage pattern changes resulting in erosion and siltation would be less than significant.

Since Alternative 1 would not involve any construction activity, it is considered to have no impact as compared to the Project's less than significant impact, and therefore less construction impact than the Project.

During operation of the Project, drainage would still flow into the adjacent municipal storm drain system after on-site detention and filtration. As such, development of the Project would not alter the drainage pattern in the post-project condition. The Project would

slightly decrease the rate of surface runoff under post-project condition, as some detention would be provided by the proposed biofiltration/bioretenion system.

The slightly reduced runoff under the Project would not occur under Alternative 1. Therefore, the impact of Alternative 1 would be considered greater than that of the Project, but the impact of both Alternative 1 and the Project would be less than significant.

(iv) Alteration of Drainage Pattern Resulting in Exceedance of Stormwater Drainage System Capacity or Impedance of Flood Flows

Alternative 1 would not involve any development and, as such, would not result in a construction- or operation-related change in surface water runoff that would exceed the capacity of the existing or any planned drainage system. Existing infrastructure in the vicinity of the Project Site is sufficient to accommodate 10-year and 50-year storms.

In comparison, the Project's temporary increase in permeable surfaces during construction would reduce rather than increase off-site runoff from the Project Site during a portion of the construction. In accordance with BMPs to be implemented during construction to manage runoff flows and avoid on- or off-site flooding, the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems.

During operations, the Project would also maintain existing drainage patterns at the Project Site. No new off-site storm drainage infrastructure is required. The Project's 50-year (Q_{50}) peak flow rate of stormwater runoff from the Project Site would be expected to decrease slightly from an estimated 2.73 cubic feet per second (cfs) to an estimated 2.70 cfs, owing to the retention afforded by the proposed LID system. Therefore, the quantity of stormwater runoff from the Project Site requiring conveyance by the existing off-site storm drain system would decrease under the Project.

While Alternative 1 would have no construction related impact, the Project would reduce run-off and implement BMPs during construction; and therefore Project impact would be considered similar to that of Alternative 1. During operations, the Project impact related to the capacity of the off-site stormwater drainage system would be less than significant, because a reduction in stormwater flow would occur under the Project as compared to existing conditions. As the Project's benefit related to stormwater drainage would not occur under Alternative 1, the impact of Alternative 1 on the existing municipal storm drainage system is considered greater than that of the Project, and would also be less than significant, like the Project.

(v) Pollutant Release in Flood Hazard, Tsunami, or Seiche Zones

According to the City's Zone Information and Map Access System (ZIMAS), the Project Site does not lie within a flood zone; and the California Department of Water Resources

(DWR) indicates that the Project Site does not lie within a 100-year floodplain. The Project Site is located in an area of relatively flat topography and urban development, with no hillsides or enclosed bodies of water nearby, and as such, there is no potential for inundation resulting from a seiche or mudflows.

Therefore, the Project and Alternative 1 would not be subject to the release of pollutants due to such related events. The impact of the Project and Alternative 1 would be similar and less than significant.

(vi) *Implementation of Water Quality Control Plans*

The Project falls within the jurisdiction of water quality plan regulations that assure that development projects are in compliance with clean water policies. These plans and regulations include the LARWQB (Region 4) Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties; and the NPDES stormwater permitting program. Also, the City is included within the Water Replenishment District of Southern California, which pursuant to the requirements of the Sustainable Groundwater Management Act of 2014 (SGMA) has submitted an analysis that demonstrates compliance with applicable portions of the California Water Code (CWC) and consistency with the SGMA's objectives by promoting sustainable management of the groundwater in the Central Subbasin.

The Project would incorporate into its design an on-site drainage system that would meet regulatory requirements of the applicable plans for the protection of water resources. The on-site drainage system would collect rainfall from the rooftop and terrace areas, treat/filter the water flow and convey it to the groundwater and/or local storm drain system. This on-site drainage system would provide BMPs in accord with the City's LID requirements. The Project would have a less than significant impact on both surface and groundwater quality and groundwater supplies and recharge. Project implementation would reduce the amount of storm-water from the Project Site and improve its quality, in compliance with the applicable plans and regulations.

Therefore, the Project would be compliant with the Water Quality Control Plans, and its impact would be less than significant. Alternative 1 would be an existing condition within the implementation of the water quality control plans, and therefore would have no impact regarding the implementation of such plans. The impact regarding Alternative 1 would be less than that of the Project.

(i) *Land Use and Planning*

(i) *Division of an Established Community*

Alternative 1 would continue the use of the existing development on the Project Site, inclusive of the five commercial buildings and associated surface parking. The Project Site is located within the boundaries of the Community Plan Area, in a highly urbanized

area of Downtown, and is located within the existing street grid that interconnects the Downtown area.

The Project would represent redevelopment of the already developed site in conformance with the existing General Plan land use designation and zoning of the Site and would be similar to other large mixed-use development projects recently constructed in the area. The Project would not close or re-route existing streets; and would comprise an infill development within the existing grid pattern.

Alternative 1 would have no impact on the division of an established community. The Project's change in the uses on the Project Site would be considered less than significant and substantially similar to that of Alternative 1.

(ii) Consistency or Conflict with a Land Use Plan, Policy or Regulation

Alternative 1 would not change existing conditions on the Project Site or add any housing, and the existing buildings would continue to provide low-density downtown storefront uses such as restaurant and retail activities.

In comparison, the Project would provide up to 794 residential units and 12,504 square feet of restaurant/retail uses; with supporting open space for Project residents, a public plaza and related pedestrian improvements. As such the Project would be consistent with and would not conflict with plans, policies and regulations developed by SCAG and the City for reducing impacts on the physical environment, in some cases directly and in some cases indirectly by establishing land use patterns and relationships that reduce environmental impacts. Generally, the applicable plans, policies and regulations are intended to establish the Downtown area as a "Downtown Center," an area of increased density within a HQT. The intent is to create population density at key locations in the City to support regional public transportation systems, reduce VMT, provide efficiency in the provision of infrastructure, and accommodate City growth in a manner that reduces impacts on the City's existing low-density neighborhoods. The purpose of the plans is also to create a vibrant Downtown with complementary uses and an attractive physical design that supports pedestrian activity.

The provision of residential development in South Park supports walkable access to the nearby financial district, entertainment uses such as LA LIVE and the Staples Center, nearby transit, commercial uses, services and parks, thus reducing the use of private vehicles for activities, creating symbiotic relationships that contribute to the vibrancy of Community Plan Area and providing increased density to support the use of public transportation. The Project's street level restaurant/retail uses with adjacent street improvements would contribute to the active pedestrian milieu that is being created in the Downtown area. The Project's new development would implement TFAR provisions to accommodate increased population density in a manner consistent with the vision for the South Park neighborhood. The Project would also be consistent with the provisions of the Downtown Design Guide, providing development meets aesthetic standards, and building

relationships that have been established to create an attractive, livable Downtown area. As the Project would be consistent with, and would not conflict with, land use plans policies and regulations, its impact regarding land use would be less than significant.

Alternative 1 would not provide housing or implement TFAR or other measures to increase density in a TPA. Therefore, the impact of Alternative 1, while not achieving the goals, objectives, and policies of the applicable plans and regulations, or not achieving them to the extent that the Project would, would be similar to the Project, and less than significant, in not conflicting with these goals, objectives and policies.

(j) *Noise*

(i) *Temporary or Permanent Increase in Noise Levels in Excess of Established Standards*

(a) *Construction*

Alternative 1 would not involve substantial development activities, therefore, it would have no construction noise impact from heavy equipment or other substantial construction noise producing sources.

In comparison, under the Project, on-site construction activities would produce noise levels that would exceed applicable noise impact thresholds at adjacent residential developments (noise sensitive uses R1 and R2). The Project would implement mitigation measures NOISE-MM-1 and MM-NOISE-2, requiring the use of noise barriers to reduce construction noise levels by at least 10 dBA, and mitigation measure MM-NOISE-3, requiring that construction equipment be equipped with noise mufflers that must achieve reductions in noise levels of at least 8 dBA. While the mitigation measures would reduce construction noise levels, they would not reduce the construction noise levels below the applicable noise standards at all affected locations. As such, Alternative 1 would have less of an on-site construction noise impact than the Project, and would avoid the Project's significant and unavoidable on-site construction noise impact.

(b) *Operation*

Alternative 1 would not change existing ambient or periodic noise levels at the Project Site compared to existing conditions. In comparison, the Project's new uses would generate operational noise, but the impact of the Project's operational noise from its new uses would be less than significant, without the need for mitigation measures to be implemented.

Alternative 1 would not change ambient noise levels due to existing activities, and, therefore, it would have less of an impact than the Project.

(ii) *Generation of Groundborne Vibration and Noise*

(a) Construction

Alternative 1 would not generate construction-related groundborne vibration or noise. In comparison, the Project's construction activities at the Project Site would have the potential to generate low levels of groundborne vibration and noise as the operation of heavy equipment generates vibrations that propagate through the ground and diminish in intensity with distance from the source. However, mitigation measures NOISE-MM-3 and NOISE-MM-4 would restrict the distances in which heavy construction equipment could operate in proximity to sensitive receptor locations R1 and R2, and the vibration characteristics of the equipment used. The reduction in potential vibration levels would also limit the extent of groundborne vibration that could occur within the alley adjacent to the Project Site, and therefore the vibration reaching remnants of the *Zanja* No.8, should such remnants be present beneath the alley. Implementation of these mitigation measures would reduce the Project's construction impact regarding groundborne vibration and noise to a less than significant level.

Since Alternative 1 would not require the use of heavy construction equipment or cause any construction-related vibration or noise, it would have less of an impact than the Project.

(b) Operation

Alternative 1 would include a slight increase in traffic, but the relatively few trips would not result in a perceptible increase in groundborne noise or vibration.

The Project would also not generate groundborne noise or vibration in excess of established thresholds, and therefore, its impact would be less than significant. However, the increased site utilization of Alternative 1 would be minimal and is, therefore, considered to result in less of impact than the Project regarding groundborne vibration and noise. As with the Project, the impact of Alternative 1 would be less than significant.

(iii) *Exposure of People to Excessive Noise Levels Near Airports*

The two nearest airports to the Project Site are the Hawthorne Municipal Airport and Los Angeles International Airport, located approximately 9 miles and 10 miles to the southwest, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project Site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. As such, there would be no exposure of Project Site population to noise associated with such facilities. Both the Project and Alternative 1 would result in no impact regarding airport/air-facility noise and the impact for the two uses would be similar.

(k) *Population and Housing Growth*

Alternative 1 would not result in an increase in housing or population. Alternative 1 could potentially increase the number of employees on-site by approximately 62 workers with full occupancy of the retail/restaurant uses.⁶

In comparison, the Project would generate approximately 1,929 new residents (based on the conservative assumption that the household sizes would be similar to those occurring citywide). This increase would be well within SCAG's projected population growth in the City, and would be approximately 1.3 percent of SCAG's estimated growth in City population from 2017 to 2023; and 0.3 percent of SCAG's estimated population increase for the City between 2017 and 2040. Similarly, as discussed above, the Project's 794 new dwelling units would be well within SCAG's projected housing growth in the City, and would represent approximately 1.0 percent of the growth in the City between 2017 and 2023, and approximately 0.3 percent of the growth between 2017 and 2040, respectively. The Project's employment increase of 49 employees would be well within SCAG's would represent approximately 0.04 percent of the employment growth in the City between 2017 and 2023, and approximately 0.01 percent of the growth between 2017 and 2040. As such, Project-related population growth in the in the City would be consistent with SCAG's projections. Thus, this growth is planned and would not represent induced or unplanned growth beyond that otherwise occurring. In addition, the location of the Project's housing in the Downtown area would support SCAG and City policies to increase the density of the Downtown population in order to support greater use of public transit, and would help to achieve the regional goal of fewer VMT. The Project would not require the displacement of housing units or residential population.

The Project would increase the number of Project Site employees by approximately 49 new workers. As discussed above, the small increase in the number of employees would be consistent with the number of new employees expected for the City in the SCAG projections. By providing a large number of new housing units and only a small increase in employment, the Project would help bring the jobs/housing ratio in the Downtown Area closer to the regional job/housing ratio, indicating that the Project would support SCAG policies to provide work locations and residential locations in proximity to one another to reduce VMT. The impact of the Project regarding population and housing growth being consistent with demographic projections and the placement of housing within the region would be less than significant.

Since Alternative 1 would have no impact on population and housing in comparison to the Project's less than significant impact, Alternative 1 would have a lesser impact than the Project.

⁶ Under Alternative 1, there would be 35,651 sf of fully occupied retail/restaurant uses, which would generate 97 employees. This was calculated as follows: $35,651 \times 0.00271 = 97$ (rounded up). The employee generation factor of 0.00271 is from the Los Angeles Unified School District, 2016 Developer Fee Justification Study, March 2017. There are currently 35 employees at the Project Site. Therefore, Alternative 1 would include 62 additional employees more than currently existing. ($97 - 35 = 62$)

(I) *Public Services*

(i) *Fire Services*

Alternative 1 would not create new buildings and would not cause an increase in residential population that would increase the demand on Los Angeles Fire Department (LAFD) services. Its higher occupancy rates with up to 62 additional workers would have negligible effects on the demand for LAFD services. Site uses would be similar to those that have occurred during times of full occupancy in the past. Alternative 1 would not require the construction or expansion of existing fire protection facilities.

In comparison, the Project would add a new building at the Project Site with a new residential population. The analysis of the Project's impact on fire protection and emergency services concludes that the Project Site has adequate access for fire services and would have sufficient water flow for firefighting service. Further, the Project would meet regulatory requirements for safety features that provide for the public safety and that reduce the demand for firefighting responses. The impact of the Project on fire services would be less than significant without mitigation. The Project would not require the addition of new firefighting facilities, whose construction might cause significant environmental impacts.

Alternative 1 would have less of an impact on the demand for LAFD services than would the Project. Like the Project, the Alternative's impact would be less than significant.

(ii) *Police Services*

Alternative 1 would not cause an increase in residential population at the Project Site and would add a net increase in non-residential population at the Project Site of 71 people.⁷ Site uses would be similar to those that have occurred during times of full occupancy in the past. The resulting increased demand on Los Angeles Police Department (LAPD) services would be negligible.

In comparison, Project operation would provide 794 residential units, with an estimated residential population of 1,929 persons; and 12,504 square feet of restaurant/retail space. The Project would also add an estimated non-residential population of approximately 52 people over the existing conditions. A number of factors would reduce the need for the construction of new police facilities to accommodate the Project's population. A number of Project Design Features would enhance safety around the Project Site, including private on-site security with approximately 30-40 on-site staff, a closed circuit television system, and a 24-hour/seven-day security program. Also, LAPD services are

⁷ The Los Angeles CEQA Thresholds Guide provides separate factors for calculating non-residential population for evaluating impacts on police services. The rate for retail uses is 3 people per 1,000 square feet, which would result in a non-residential population of 107 people for Alternative 1, with full occupancy. The non-residential population in the currently occupied 5,171 square feet of retail space is 16. As a non-residential factor is not provided for light manufacturing, a rate of 1.35 employees per 1,000 square feet is used for the 14,653 square feet of light manufacturing uses resulting in 20 additional non-residential people or a total of 36 under existing conditions. 107 total non-residential population less the 36 existing equals a non-residential population of 71 people.

supplemented through the provision of private security provided by Business Improvement Districts. The provision of private security reduces the demand on LAPD services, and therefore the demand for added physical facilities. Moreover, the LAPD currently has no plans for a new police station or expansion of an existing station to serve the Project Site and vicinity. For these reasons, the Project's added demand on police services would not require new facilities, whose construction could result in significant impacts on the environment, and the Project's impact on police services would be less than significant.

Since Alternative 1 would not cause an increase in the residential population of the Project Site, and would add only a small non-residential population, it would have less of an impact on police services than the Project. As with the Project, the impact would be less than significant.

(iii) Schools

Alternative 1 would not include new residential uses that would create a student population at the Project Site that would increase the demand for school services or require the expansion of school facilities. Calculations of student generation also take into account secondary student increases resulting from commercial development. Full occupancy under Alternative 1, with conversion of existing vacant space or existing light manufacturing space to restaurant/retail space, would result in approximately one new student in total, or less than one student attributed to each school type.⁸

In comparison, based on Los Angeles Unified School District (LAUSD) generation factors, the Project's 794 multi-family residential units, and 12,504 square feet of commercial/restaurant uses, are estimated to generate approximately 131 elementary school students, 36 middle school students, and 75 high school students, for a total of 242 new school students. This increase could contribute to the existing shortfall in classroom space in the area. However, pursuant to Section 65995 of the California Government Code, the Project Applicant would be required to pay fees in accordance with SB 50, the payment of which is deemed full mitigation of a project's development impacts. According to the LAUSD, no new school construction is planned, and future students could be accommodated, if necessary, through the use of such mechanisms as temporary classrooms, multi-track calendars and increased class-room size. As such, the Project's impact to schools would be less than significant.

With a potential student contribution of one student, the impact of Alternative 1 would be negligible, and less than that of the Project. The impact of Alternative 1, like that of the Project would be less than significant.

⁸ The total number of students for all school levels is 0.0378 students per 1,000 square feet of commercial use, based on factors in the 2010 Commercial/Industrial Development School Fee Justification Study, LAUSD, September 27, 2010. $(0.0378 \times 35,651/1,000 = 1.2 \text{ students})$

(iv) *Library Services*

Alternative 1 would not result in a new residential population at the Project Site that would increase the demand for library services. As Alternative 1 would add 62 additional employees more than currently exist on the Project Site, it could potentially generate a few visitors to local libraries.

In comparison, the Project would add an estimated 1,929 new residents at the Project Site (based on the conservative assumption that the household sizes would be similar to those occurring Citywide). As discussed above, this increase in residential population could be accommodated at libraries serving the Project Site, without creating a need for additional library facilities; and the Project's impact would be less than significant.

Alternative 1's impact on libraries would be negligible and less than the Project's impact, and like the Project's, would be less than significant.

(v) *Parks and Recreation*

Alternative 1 would not create a residential population at the Project Site, or a resulting increase in demand for parks and recreational facilities. Alternative 1's increase of up to 62 additional employees could result in a few additional visits to nearby local parks.

In comparison, the Project's 794 residential units would generate an estimated 1,929 residents (based on the conservative assumption that the household sizes would be similar to those occurring Citywide). However, the Project would provide 123,844 square feet of on-site open space and recreation facilities, of which 2,728 square feet would be included in a publicly accessible plaza and 100,652 square feet for Project residents that would meet City's LAMC requirements for open space. This open space area, with large open to sky landscaped terraces and recreation/spa facilities would reduce the demand on local parks by Project residents and meet the LAMC open space requirements. Residual demand for off-site park space would be limited and would be distributed among a large array of park facilities in the vicinity. Existing parks in the South Park neighborhood are recipients of fees, via Development and Owner Participation Agreements, that provide a funding stream for the maintenance and security of local parks, thus avoiding potential degradation of the facilities that might occur with increased demand. The Project would not cause substantial degradation of existing facilities at any single park location that would require a new public park. In addition, compliance with existing LAMC regulations that require the dedication of parkland, payment of in-lieu fees, and/or provision of comparable on-site recreational facilities, would reduce The Project's impact to a less than significant level.

Alternative 1 would cause a negligible increase in the demand for parks due to the 62 additional employees on the Project Site; however, there would be no increase in residential population as compared to the Project. As such, Alternative 1's impact on parks and recreational facilities would be less than the Project's less than significant impact.

(m) *Transportation and Traffic*

(i) *Circulation System Programs, Plans, Ordinances and Policies*

- (a) LOS Analysis based upon Los Angeles Department of Transportation (LADOT) Transportation Impact Study (TIS) Guidelines

(i) *Construction*

Alternative 1 would not include new development, and as such, it would have only minimal and intermittent construction traffic impacts associated with tenant improvements. Such trips would be small in number and would not require excavation haul trips or movement of heavy equipment.

In comparison, construction of the Project would generate new construction trips. However, the number of construction trips (with conversion of truck trips to Passenger Car Equivalents [PCE]) would be less than significant. In addition, potential land and sidewalk closures would be limited and accommodated safely, and parking, access and transit services would be impacted minimally. The Project would include TRAF-PDF-1, requiring implementation of a Construction Management Plan, and TRAF-PDF-2, requiring implementation of a Pedestrian Safety Plan. Therefore, Project construction impact would be less than significant without mitigation.

Since Alternative 1 would not involve any construction activities, it would have less of an impact due to construction activity than the Project, and, like the Project, its impact would be less than significant.

(ii) *Operation*

Alternative 1 would not include new development, however occupancy of the currently vacant spaces would increase the amount of traffic related to the Project Site. The net increase in such trips, over existing levels, is shown in **Table V-2, Alternative 1, Net Trip Generation Summary**.⁹ Table V-2 also shows the Project's net increase in trip generation and a comparison of Alternative 1's net increase to that of the Project.

As shown in Table V-2, Alternative 1 would generate approximately 83 percent fewer trips than the Project in the A.M. peak hour, as it would generate 33 net A.M. peak hour trips as compared to the Project's 196 net trips. In the P.M. peak hour, Alternative 1 would generate approximately 61 percent fewer trips than the Project, as it would generate 78 net P.M. peak hour trips as compared to the Project's 200 net trips. Access would be provided only from the alley under Alternative 1.

⁹ The Calculation of trips for the Alternatives, was prepared by The Mobility Group, and is included in Appendix N of this Draft EIR. The calculations show the assumptions regarding

TABLE V-2
ALTERNATIVE 1 – NET TRIP GENERATION SUMMARY

Alternative	Net Trip Generation Estimates						
	Daily	A.M. Peak Hour			P.M. Peak Hour		
		In	Out	Total	In	Out	Total
Alternative 1	876	16	17	33	48	30	78
Project	2,227	39	157	196	138	62	200
Alternative 1 Net Trip Increase (Decrease) Compared to Project	(1,351)	(23)	(140)	(163)	(90)	(32)	(122)
SOURCE: The Mobility Group, 2019.							

In comparison, the analysis of the Project's impacts concludes that when measured against future baseline conditions, the Project would have a significant impact at one intersection in the A.M. peak hour. However, the Project would include mitigation measures that would fully mitigate the significant impact and there would be no remaining unmitigated impacts in the A.M. peak hour. Mitigation measure TRAF-MM-1 would require the implementation of a Transportation Demand Management (TDM) Program that provides trip reduction measures that support non-vehicular transportation (e.g., unbundling of parking, bike facilities, etc.). Mitigation measure TRAF-MM-2 provides funding for upgrades to the City's traffic signal control system that controls the efficiency of traffic movement on the roadways (e.g., system detection loops, closed circuit television [CCTV] cameras, etc.). In the P.M. peak hour, the Project would have significant impacts at four intersections. However, mitigation measures TRAF-MM-1 and TRAF-MM-2 would fully mitigate the significant impacts at all three impacted intersections and there would be no remaining unmitigated impacts in the A.M. or P.M. peak hours.

Based on a review of the volume to capacity (V/C) ratios, level of service (LOS) results, and V/C ratio increases in the impact analysis, Alternative 1 would result in less than significant impacts as compared to the Project's significant impact requiring mitigation in the A.M. peak hour, so that no mitigation measures for Alternative 1 would be required. In the P.M. peak hour, Alternative 1 would result in less than significant impacts as compared to the Project's four significant impacts requiring mitigation, so that no mitigation measures for Alternative 1 would be required. Alternative 1 would have less of an impact, than the Project's mitigated impacts. As such, impacts with respect to traffic circulation would be less under Alternative 1 than those of the Project.

(b) Congestion Management Program

Alternative 1 would generate fewer trips than the Project under daily, A.M. peak hour and P.M. peak hour conditions, and would therefore contribute proportionately fewer trips at

the Los Angeles County Congestion Management Program (CMP) monitoring locations than would the Project.

As discussed above for the Project, the maximum number of trips that the Project would add to any CMP monitoring intersection would be 10 trips in both morning and afternoon peak hours; and the Project would not add more than the 50 trip threshold to any CMP monitoring intersection. The maximum number of one-way Project trips that would be added to freeway segments would be 16 morning trips and 14 afternoon peak hour trips at the SR-110 south of US-101 station. These low incremental volumes are well below the CMP threshold of 150 trips along freeway segments. The Project's impact at CMP monitoring intersections and freeway segments would be less than significant.

The highest total volume of peak hour transit trips that would be added by the Project would be 53 trips, which would represent approximately 0.14 percent of the total transit capacity during the peak hour. These 53 trips would be distributed over a large number of public transit services. The Los Angeles County Metropolitan Transportation Authority (Metro) is currently experiencing system-wide bus and rail decline in ridership; and the Project would not cause the capacity of the transit system to be substantially exceeded.

Alternative 1's less than significant impact relative to CMP thresholds would be less than the Project's less than significant impact, because the Alternative 1 would generate fewer A.M. and P.M. peak hour trips.

(c) Policies and Plans for Public Transit, Bicycle, and Pedestrian Facilities

The Project Site is served by a wide variety of transit options, ranging from heavy rail, rapid bus, local bus, and express bus services, and it would continue to as such under Alternative 1. Under Alternative 1, there would be no change in how Project Site occupants access the Project Site, or how they are served by public transit. Alternative 1 would not provide new facilities, or otherwise conflict with plans and policies to encourage and support greater use of alternative modes of transportation.

In comparison, the Project could potentially affect the accessibility to alternative transportation modes during construction and would have a link to alternative transportation modes during operations. However, during construction, safe pedestrian accessibility would be maintained in the Project Site vicinity, with continued linkages to public transit and bicycle lanes. TRAF-PDF-1 and TRAF-PDF-2, which provide for a Construction Management Plan and a Pedestrian Safety Plan, would ensure that potential adverse effects on the integrity and safety of pedestrian accessibility and continued use of adjacent alternative transportation facilities during construction would be avoided or less than significant.

During Project operations, the Project would provide such pedestrian amenities such as landscaping, setbacks, shade, benches and pedestrian-scale lighting along the Olive Street and 11th Street edges of the Project Site, and pedestrian-scale retail commercial

uses along street frontages. A pedestrian plaza would be provided at the corner of Olive Street and 11th Street to enhance pedestrian circulation. The frontages of the Project Site would meet the design and landscaping requirements included in the Downtown Design Guide and the MyFig Project. The Project would implement mitigation measure TRAF-MM-1, requiring implementation of a transportation demand management program that includes provisions for: bicycle facilities; information regarding the availability of, and encouraging the use of, public transit; and the payment of funds to support off-site improvements regarding bicycle services and first/last mile transit accessibility. The Project would also support State, regional and local plans and programs whose primary focus is to increase density in proximity to public transit options, including rail and bus services, as well as bike lanes and a high quality pedestrian network, thereby promoting and supporting the use of alternative modes of transportation. With these features, Project operation would be consistent with policies and plans for public transit, bicycle and pedestrian facilities, and the Project impact would be less than significant.

However, since there would be no changes to the Project Site under Alternative 1 that could affect public transit, bicycles and pedestrian facilities, it is considered to have less of an impact than the Project. At the same time, Alternative 1 would not provide the beneficial support for alternative modes of transportation that would be provided by the Project.

*(ii) VMT Analysis pursuant to State CEQA Guidelines
Section 15064.3.*

Alternative 1 is a project with small-scale, local serving retail uses; and containing less than 50,000 square feet. Such projects are assumed to have a less than significant VMT impact and can be excluded from implementation of the City's VMT Calculator analysis.

In contrast, the larger Project development would generate more than 250 daily trips and require discretionary action thus exceeding the screening threshold and requiring a VMT analysis using the City's VMT Calculator. Upon entering the Project information into the City's VMT Calculator, the VMT analysis shows that the Project's Household VMT per Capita would be 4.2 compared to the threshold of 6.0, and would therefore be less than significant. Also, the Project's Work VMT per Capita would be less than significant, as its retail component contains small-scale, local-serving retail land uses with less than 50,000 square feet. Therefore, impact under Alternative 1 would be less than that of the Project, although both Alternative 1 and the Project would have less than significant impacts.

(iii) Design Feature Hazards

Alternative 1 would have no impact with respect to design feature hazards, as the Project Site would continue to be accessed in the same manner as in the existing setting. As such, no features, such as sharp curves or new intersections, would be created under Alternative 1 that could increase hazards on existing roadways.

In comparison, although the Project would change the access points to the Project Site, it would provide access to the Project Site in a manner that is safe and that would not create hazardous conditions. Site access would be provided by one driveway on Olive Street and two driveways in the alley that connects 11th Street and Olympic Boulevard between Olive Street and Grand Avenue. The Olive Street driveway would have two lanes to accommodate inbound and outbound residential and commercial traffic, and would be designed to LADOT standards with adequate visibility, would provide for pedestrian safety, and would provide sufficient capacity to prevent queuing in the City's right-of-way. The Project's impact would be less than significant.

Since Alternative 1 would not cause any changes in access to the Project Site, the impact under Alternative 1 would be less than the Project's less than significant impact.

(iv) Emergency Access

Alternative 1 would have no impact with respect to emergency service access to the Project Site, as no physical changes would occur to the adjacent roadways or site access.

In comparison, under the Project, construction activities would include fences that encroach into the public right-of-way (e.g., sidewalk, bicycle lanes and roadways) adjacent to the Project Site during off-site or streetscape improvements. However, the Project includes a Construction Management Plan, inclusive of a Worksite Traffic Control Plan, that would ensure that traffic flow and access would be maintained throughout the course of construction activities. Operation of the Project would generate traffic in the Project Site vicinity and increase traffic within the area. However, emergency access to the Project Site and surrounding area would continue to be provided on adjacent streets similar to existing conditions. No roadways bordering the Project Site are designated as an emergency or disaster route by the City. Direct vehicular access to the Project Site would be provided via three access driveways, two of which would be accessed off of the alley that connects Olive Street and 11th Street. The Project impact regarding emergency access would be less than significant.

However, since Alternative 1 would not affect any change to how the Project Site is accessed, it would have less of an impact than the Project's less than significant impact.

(n) Tribal Cultural Resources

Alternative 1 would not involve new development and therefore is not subject to the provisions of AB 52 regarding consultation with Native American individuals and organizations. Further, Alternative 1 would include no changes or soil disturbance on the Project Site or in the Project vicinity that might potentially uncover known or previously unknown tribal cultural resources.

The Project has included Tribal consultation pursuant to AB 52 as part of its EIR analyses. No substantial evidence was provided to support a claim that known sacred lands or tribal cultural resources overlap with or occur within the Project Site, or that any known sacred lands or Tribal cultural resources would be affected by the Project. The Project would be

subject to compliance with City's standard conditions of approval for the treatment of inadvertent tribal cultural resource discoveries. Further, the Project's evaluation of cultural resources identifies a potentially high sensitivity for buried archaeological resources that, once encountered, could potentially be considered a tribal cultural resource. Mitigation measure CULT-MM-2 provides for unanticipated discovery of such archaeological resources. Therefore, should tribal cultural resources be encountered during construction activities, mitigation per PRC Section 21084.3 would be implemented in order to address these resources.

As Alternative 1 would have no impact on potential tribal cultural resources, the impact under Alternative 1 would be less than that of the Project, which was determined to result in a less than significant impact with respect to tribal cultural resources.

(o) *Utilities*

(i) *Wastewater*

(a) *Construction*

Alternative 1 would not require a notable amount of construction workers for implementation of tenant improvements. The few workers may use existing on-site facilities or perhaps a porta-potty.

Construction of the Project, with its larger number of workers, would generate a small amount of wastewater. Such wastewater generation would be temporary and would not contribute wastewater flows to the local wastewater collection system. Portable restrooms would be provided and serviced by a private company, in accordance with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The resultant waste would be disposed of off-site by a licensed waste hauler, and in accordance with applicable regulations, it is expected that the wastewater generated during Project construction would be treated within the Hyperion Sanitary Sewer System. Therefore, relocation or construction of new or expanded wastewater treatment facilities would not be required for construction activities.

Alternative 1 would have a substantially reduced construction program from that of the Project and would therefore generate less wastewater than the Project. As is the case with the Project, the impact on wastewater due to construction would be less than significant.

(b) *Operations*

Under Alternative 1, although there would be no development activities that could impact wastewater and related water quality, and operation of the additional retail/restaurant uses on the Project Site would increase the wastewater generation at the Site. As shown

in **Table V-3, Alternative 1 – Estimated Wastewater Generation**, operation of Alternative 1 would generate 11,378 gallons per day (gpd) of wastewater at full occupancy.¹⁰

In comparison, as shown in Table V-3, the Project would generate 129,004 gpd of wastewater, which is 117,626 gpd greater than Alternative 1. Existing infrastructure that serves the Project Site is sufficient for conveying, treating and disposing the Project's wastewater generation, and therefore the Project's impact to wastewater would be less than significant without the implementation of mitigation.

TABLE V-3
ALTERNATIVE 1 - ESTIMATED WASTEWATER GENERATION

Type of Use ^a	Quantity ^a	Generation Factor (gpd/unit) ^a	Wastewater Generation (gpd)
Alternative 1			
Retail ^a	26,738 sf	25/1,000 sf	668
Restaurant ^b	8,913 sf/357 seats	30/seat	10,710
Alternative 1 Total			11,378
Project Total Wastewater			129,004
Alternative 1 (Decreased) Wastewater Generation as Compared to Project			(117,626)
Abbreviations: gpd – gallons per day, sf = square feet, ksf = 1,000 square feet			
^a The average daily flow based on the Bureau of Sanitation sewage generation factors.			
^b It is assumed that a restaurant seat would occupy 25 sf.			
SOURCE: ESA, 2018.			

Alternative 1 would generate 91 percent less wastewater than the Project and therefore would have less of an impact regarding conveyance and treatment of wastewater than the Project's less than significant impact. Therefore, Alternative 1's impact with respect to wastewater generation and treatment capacity would also be less than significant.

¹⁰ This estimate of wastewater generated does not net-out the wastewater generation from the existing uses on the Project Site for the Project or the Alternative. The analysis of wastewater in Section IV.O.1, *Wastewater*, of this Draft EIR uses the gross value as the total amount of wastewater is more pertinent to evaluating impacts on local infrastructure. The use of the gross value for evaluating impacts on treatment capacity, which is only affected by the net increase, provides a conservative analysis. Further, the analysis is conservative as it does not take into account water conservation features.

(ii) *Water Supply*

(a) Construction

Alternative 1 would not require a notable amount of construction workers for implementation of tenant improvements. The few workers would have access to current water service that is available at the Project Site.

The Project would create a temporary demand for water for construction workers and construction activities such as soil compaction and earthwork, dust control, mixing and placement of concrete, and equipment and site cleanup. These activities would occur incrementally throughout the construction period.

Water for construction activities may be trucked in by private purveyors, but it could also be provided by tapping into the existing water lines that are already serving the Project Site, or a combination of both. Therefore, relocation or construction of new or expanded water facilities, would not be required for construction activity.

Alternative 1 would have a substantially reduced construction program from that of the Project and would generate negligible increases in water consumption over that otherwise occurring with the existing on-site uses. As is the case with the Project, the impact on services due to construction would be less than significant.

(b) Operations

Under Alternative 1, although there would be no construction activities that could require the consumption of water resources, operation of the additional retail/restaurant uses on the Project Site would increase the demand for water resources. As shown in **Table V-4, Alternative 1 – Estimated Water Consumption**, Alternative 1 would generate the demand for 11,087 gpd of water over existing levels.

In comparison, as shown in Table V-4, the Project would generate a net increase in water consumption of 108,070 gpd, after the implementation of mandatory and voluntary water conservation measures, which is approximately 96,983 gpd more than the water demand for Alternative 1. Even so, sufficient availability of water supply exists to meet the Project's demand for water consumption and sufficient infrastructure is in place to deliver the water to the Project Site. Therefore, Project's impact related to water demand is less than significant.

Alternative 1 would create a demand for water consumption that is approximately 90 percent less than that of the Project's less than significant water demand. Therefore, Alternative 1 would also have a less than significant impact with respect to water demand.

TABLE V-4
ALTERNATIVE 1 - ESTIMATED WATER DEMAND

Type of Use ^a	Quantity ^a	Generation Factor (gpd) ^a	Water Demand (gpd)
Alternative 1			
Retail ^b	26,738 sf	25/1,000 sf	668
Restaurant ^b	8,913 sf/357 seats	30/seat	10,710
Subtotal			11,378
Less Existing ^c			291
Net Alternative 1 Total			11,087
Project Water Demand ^d			108,070
Alternative 1 (Decreased) Water Demand as Compared to Project			(96,983)

Abbreviations: gpd – gallons per day, sf = square feet, ksf = 1,000 square feet

^a The average daily flow based on the Bureau of Sanitation sewage generation factors.

^b It is assumed that a restaurant seat would occupy 25 sf.

^c The existing water consumption at the Project Site was calculated and incorporated into the estimate of water demand in the Project's WSA.

^d This total is after water conservation required by ordinance and additional project conservation measures; and reduction credit for water consumption by existing uses on the Project Site.

SOURCE: ESA, 2018.

(3) Relationship of Alternative 1 to Project Objectives

Alternative 1 would not meet any of the following Project Objectives:

- It would not employ smart growth strategies and maximize the utilization of the Project Site with a TFAR to provide high-density, high-rise housing and public benefits in South Park, or provide improved accessibility to alternative transportation modes in a HQT/TPA (Objective 1);
- It would not provide infill housing in an employment rich mixed-use area, improving the jobs/housing ratio of the Downtown area in accordance with state, regional and local laws and policies supporting the reduction of VMTs, air quality emissions, and GHG emissions (Objective 2);
- It would not provide an architecturally significant and distinctive high rise building in the South Park neighborhood, or a building with innovative design elements and distinctive architectural features, such as tower open space cut-outs, nor would it add an interesting landmark feature to the developing Downtown skyline. (Objective 4);

- It would not would provide new environmentally sensitive development by incorporating sustainable and green building design and construction, nor promote resource conservation, including waste reduction, efficient water management techniques, and conservation of energy to achieve LEED Gold certification. (Objective 5);
- It would not provide an economically viable development yielding short- and long-term employment opportunities, tax revenue for the City, and a substantial investment in Los Angeles (Objective 6).

Alternative 1 would partially meet the following Project Objective:

- It would allow continued provision of street-level commercial uses, but would not include pedestrian enhancements linking those uses to nearby commercial and entertainment venues. (Objective 3).

b) Alternative 2, Reduced Density – FAR of 6:1 (No TFAR).

(1) Description of the Alternative

Alternative 2 would provide the same uses as the Project, with a similar building configuration. However, the overall size of Alternative 2 would be reduced as compared to the Project. A summary of the development program for Alternative 2 is shown in **Table V-5**.

Alternative 2 would include a 20 floor residential tower located atop a five level podium with four levels of parking and street-level commercial uses. The residential tower would rise to 300 feet and would not include the Project's distinctive open-space/visual cut-outs that are a component of the Project's taller building profile.

The street level floor plan would be similar to that of the Project with a plaza at the corner of 11th Street and Olive Street, commercial uses facing 11th Street and Olive Street, and a residential lobby and parking driveway located on Olive Street. One level of subterranean parking would be included below the podium.

Under Alternative 2, the number of residential units would be reduced as compared to the Project from 794 units to 300 units, but the ground-level commercial uses would be the same as the Project at 12,504 square feet of retail/restaurant uses. Alternative 2 would have an FAR of 6:1 in contrast to the Project's 13:1, and would result in an approximately 67 percent reduction in the amount of floor area. Vehicular access would be similar to that of the Project, with two driveways located in the alley and one driveway from Olive Street.

TABLE V-5
ALTERNATIVE 2 – REDUCED DENSITY – FAR OF 6:1 (NO TFAR)

Use	Project	Alternative 2
Project Site Area for Calculation of FAR		
Existing Site (pre-dedication)	41,603	41,603
Gross Buildable Area* (to street centerline per Transit Area Mixed Use Criterion)	57,829 sf	41,603
Number of Floors		
Tower Floors	61	20
Podium Levels	9	5
Total Above Ground	70	25
Subterranean Parking Levels	6	1
Building Height	810 feet	300 feet
Development Program		
Residential Development		
Units	794 units	300 units
Floor Area	739,273 sf	237,114 sf
Commercial Development – floor area	12,504 sf	12,504 sf
Floor Area for Calculation of FAR	751,777 sf	249,618 sf
Floor Area Ratio (FAR)	13:1	6:1
Parking Spaces	891	348
<small>*Note: GBA for a Mixed Use Transit Area Project utilizing a Transfer of Floor Area is to centerline of Olive Street, 11th Street and the alley, per Art. 14.5 of LAMC. For a project that is not a Mixed Use Transit Area Project utilizing a Transfer of Floor Area, the GBA is the same as the pre-dedicated lot area.</small>		

Alternative 2 would not include the purchase of development rights from a donor site pursuant to the provisions of LAMC Section 14.5.6 or a TFAR for a Transit Area Mixed-Use Project, and the Project Site area for purposes of calculating FAR would not extend to the adjacent street centerline per Transit Area Mixed Use criterion. Further, Alternative 2 would not provide a public benefit payment. Pursuant to LAMC Section 14.5.9 the public benefit payment shall serve a public purpose, such as affordable housing, public open space, historic preservation, recreational, cultural, community and public facilities, job training, affordable child care, streetscape improvements, public arts programs, homeless services programs or transportation improvements. Unlike the Project, Alternative 2 would not be an ELDP project. The much smaller size and nature of Alternative 2 would not produce as extensive an investment and high quality jobs in California and it is extremely

unlikely that Alternative 2 would qualify under all of the criteria and requirements under PRC Section 21183 to be certified as an ELDP project.¹¹

(2) Environmental Impacts

(a) *Aesthetics*

SB 743 (PRC Section 21099(d)) provides that aesthetic impact of residential and mixed-use residential projects on an infill site within a TPA shall not be considered significant impacts on the environment pursuant to CEQA. The City's ZI File No. 2452 provides further instruction concerning the definition of transit priority projects and the analysis of aesthetics impacts that are consistent with PRC Section 21099(d). As the Project meets these qualifications, the Project would not result in significant aesthetic impacts. The same is also true for Alternative 2. However, Section IV.A, *Aesthetics*, of this Draft EIR does include for informational purposes only an analysis of the Project's aesthetic impacts based upon thresholds taken from the checklist items in Appendix G to the State CEQA Guidelines; i.e., reflecting the aesthetic impacts that would occur from the Project if PRC Section 21099(d) was not in effect. The following discussion compares the aesthetics impacts of Alternative 2 to those disclosed in the Project's informational analyses relative to scenic vistas, scenic resources, regulations regarding scenic quality, and light and glare.

(i) *Scenic Vistas*

The Project is located in Downtown Los Angeles, which provides an urban skyline that is considered a component of a scenic vista for passers-by and viewers from locations throughout the Los Angeles basin and surrounding hillside areas. The only public vantage points in the Project Site vicinity are adjacent street corridors and elevated freeways. The Project Site is currently developed and no scenic vistas are currently available from public streets adjacent to the Project Site.

Under Alternative 2, the Project Site would be developed with a single tower built above a podium, which would be substantially decreased in height from the height of the Project, while comprising a similar footprint area within the Project Site. Alternative 2 would replace the existing buildings on the Project Site with a 25-story building (a 20-story residential tower above a five-story podium). The overall building height of the tower under Alternative 2 would be 300 feet.

In comparison, the Project would replace the existing buildings with an architecturally distinctive high-rise 70-story tower (nine podium levels and a 61 story tower) rising to 810 feet in height. The Project's height and distinctive design (e.g. cut-out highlights) would contribute to the taller development skyline in the South Park neighborhood and Downtown.

¹¹ Memo from Project Applicant to Environmental Associates, July 24, 2019.

As viewed from public vantage points such as freeways, and more distant hillside areas, the Project would not block views of scenic vistas. Rather, the Project would, form a component of the City's high-rise skyline and would add additional depth, articulation and interest to the skyline as viewed from the freeway approaches to the Downtown. Because the Project would form a component of high-rise views and would not block all horizon views of the Downtown's high-rises from public locations, it would not have substantial adverse effects on a scenic vista.

With the lower building height (300 feet in contrast to 810 feet) and the lack of the taller tower cutouts, Alternative 2 would provide a less distinctive contribution to the South Park and Downtown high rise skylines. Like the Project, Alternative 2 would not have a substantial adverse effect on a scenic vista.

The Project would have no impact on scenic vistas pursuant to SB 743 and ZI File No. 2452. Likewise, Alternative 2 would also not have an impact on such views. Because Alternative 2 would also form a component of high-rise views, and would not block horizon views of Downtown's high-rises, or have a substantial impact on the scenic vista, Alternative 2 would have a similar impact to that of the Project.

(ii) Scenic Resources

Neither the Project Site nor the general vicinity of the Project Site contains scenic resources, such as stands of native trees or rock outcroppings, and neither is located along a State-designated scenic highway or associated view corridor. The nearby scenic resources in the Downtown area include such features as public plazas, art or gardens; and notable design elements along the streets, e.g., historical buildings. Given the heavily built nature of the Downtown area, these scenic resources are located within the development grid and would not be adversely affected by development within the Project Site.

Given the same visual conditions surrounding the Project Site, the smaller building envelope of Alternative 2 would also have no effect on scenic resources and the impact would be similar to that of the Project. Alternative 2 would not result in any changes in the area's scenic resources, including historical resources. Pursuant to SB 743 and ZI File No. 2452, Alternative 2 and the Project would have no impact on scenic resources.

(iii) Scenic Quality Regulations

Plans and regulations that pertain to the scenic quality of the Downtown vicinity, include the General Plan Framework, and the Community Plan (Chapter V, Urban Design inclusive of and the Downtown Design Guide as implemented through the LAMC). The scenic quality of the Project vicinity is shaped by the aesthetic character and massing of its buildings, and its pedestrian character interspersed with a number of urban features that contribute to scenic quality, e.g., including public plazas, art or gardens, consistent design elements along streets, pedestrian amenities, and landscaped medians or park areas.

The Project would contribute to the high-rise character of Downtown, provide a landscaped plaza, sidewalk improvements, and landscaping that would enhance the activity and visual character of the Project Site and its surroundings. It would include such design features as deep setbacks, reduced effects of contrast with neighboring properties, and provide space around the taller building elements. The Project's ground level facades would be organized around the pedestrian Plaza with articulation, decorative landscaping and art displays, and a mix of paneling and glass to provide varied textures while allowing highly visible interiors consistent with the ground level restaurant/retail uses, and an activated pedestrian milieu. The Project would also include AES-PDF-2 to ensure that the Project's architectural motifs would be integrated into the parking structure frontages facing the Alley and adjacent streets. As such, the Project would be consistent with and would not conflict with the implementation of the policies and design standards within the regulatory documents.

Under Alternative 2, the Project Site would be developed with a 25-story building (20-story residential tower above a five-story podium) in contrast to the Project's 70 stories (nine podium levels and a 61 story tower) rising to 810 feet in height. However, its mix of uses would be similar to those of the Project, inclusive of ground-level uses and design that would support the pedestrian character of the Downtown area. Alternative 2, would be designed to meet the guidelines and standards of the Downtown Design Guide, inclusive of the Project's AES-PDF-2, which reduces potential adverse parking structure impacts to the scenic quality.

Therefore, the impact of Alternative 2 would be similar to that of the Project. Pursuant to SB 743 and ZI File No. 2452, the Project and Alternative 2 would have no impact regarding consistency/conflicts with regulations to protect the scenic quality of Downtown.

(iv) *Light and Glare*

As was discussed in the analysis of the Project, the Project's new uses in a 70-story, 751,777 square-foot building, would include new sources of light from internal uses, exterior lighting and automobiles accessing the Project Site and the podium parking garage. Glass used in exterior façades would be made of low reflective materials in order to minimize daytime glare, and the aesthetic screening required under AES-PDF-2 would provide shielding of automobile lights emanating from the Project's parking structure. Project lighting, including architectural lighting, light emanating from the building interiors, lighting of the proposed residential amenities on the Podium deck, security lights, and illuminated signage would not create a new source of light or glare that would substantially alter the character of off-site areas or that would result in substantial light spill/or glare onto adjacent light-sensitive receptors. The Project's lighting would not exceed the 2006 L.A. CEQA Thresholds Guide standard regarding new sources of substantial light and glare.

Under Alternative 2, the Project Site would also be illuminated with new uses, as it would be occupied with new residential and restaurant/retail uses during nighttime hours. Alternative 2 would provide a 25-story building (20 tower floors over a five story podium).

Lighting associated with Alternative 2 at the ground floor would be similar to that of the Project, as its layout and uses are similar to those of the Project. Otherwise, lighting associated with Alternative 2 would be less than that of the Project due to the reduction in the amount of building mass and areas requiring illumination.

Therefore, Alternative 2's light and glare impact would be less than under Project; and pursuant to SB 743 and ZI File No. 2452 would result in no impact regarding light and glare.

(b) Air Quality

(i) Consistency or Conflict with Implementation of Air Quality Plans

Under Alternative 2, the Project Site would be developed with a 25-story building, including 300 residential units, and 12,504 square feet of commercial development in 237,114 square feet of floor area, with one level of subterranean parking. Air pollutant emissions would be generated due to construction activities and operations associated with the developed uses. In comparison, the Project would provide a 70-story building containing 794 residential units and 12,504 square feet of restaurant/retail uses in a building with 751,777 square feet of development, and six levels of subterranean parking, and would also generate air pollutant emissions due to construction and operations.

Although the Project would generate net new air pollutant emissions, it would not cause the Air Basin's criteria pollutant emissions to worsen so as to impede the objectives of the AQMP. The Project would be consistent with the AQMP as a result of its incorporation of appropriate control strategies for emissions reduction during construction. The Project would also incorporate AQ-PDF-1, which would include such features as waste recycling, heat island reduction strategies, electric-vehicle charging, building energy efficiency, and water and natural gas reduction strategies, and AQ-PDF-2, which includes restrictions on the types and characteristics of equipment that would be used during construction. Further, the Project would be consistent with the applicable growth projections and control strategies used in the development of the AQMP and would not exceed forecast emission levels identified in the Plan. During operation, the Project would also incorporate control strategies set forth in the AQMP such as location efficiency, increased density, transit accessibility, and improved development design. The Project would also be consistent with the City's growth projections and the policies of its General Plan Air Quality Element for achieving emission reduction goals. As such, Project impact with respect to consistency with the AQMP and General Plan air quality policies would be less than significant.

As compared to the Project, Alternative 2 would generate lower air pollutant emissions and would therefore have less of an impact than the Project's less than significant impact. Similar to the Project, Alternative 2 would be consistent with the AQMP and would not conflict with its achievement of applicable air quality standards and would not jeopardize attainment of air quality levels identified in the AQMP. Alternative 2 would include Project

Design Features similar to those of the Project to reduce the Project impact on air quality emissions. Further, operation of Alternative 2 would implement AQMP control strategies and would be consistent with the City's growth projections and policies. As such, Alternative 2 would also have a less than significant impact with respect to AQMP and General Plan consistency.

(ii) *Cumulative Increase of Criteria Pollutants*

(a) Construction

Alternative 2 would include a total of 249,618 square feet of development. This includes a 25-story building and one level of subterranean parking

As was discussed in the analysis of the Project, the Project's similar uses in a 70-story building, with six levels of subterranean parking and 751,777 square feet, would generate emissions through the use of heavy-duty construction equipment, construction traffic, fugitive dust emissions, paving operations, and the application of architectural coatings. Construction-related daily emissions would not exceed the SCAQMD numeric indicators of significance with the exception of short-term and temporary NO_x emissions during the one-day continuous concrete pour phase. The NO_x emissions result primarily from on-site construction equipment, and on-road hauling and concrete truck emissions generated during truck travel and idling during the one-day continuous concrete pour phase. Mitigation Measure AQ-MM-1 would require limits on the equipment used and logistics followed for implementation of the one-day concrete pour. With the mitigation measure, construction-related net maximum daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would not exceed the SCAQMD numeric indicators of significance. Therefore, the Project's impact with respect to the violation of an air quality standard would be less than significant with implementation of the identified mitigation.

The analysis of the impact on air quality due to construction is based on the maximum amount of construction that would occur on a day of maximum construction activity. Construction of Alternative 2 would involve the same construction activities as the Project, but would involve less construction overall than would the Project, resulting in a shorter construction schedule and the generation of fewer air pollutant emissions. Aside from the single day in which the Project's concrete pour would occur, the maximum construction that could occur on a single day of activity would be similar to that of the Project, and therefore, Alternative 2 would also be required to implement the same Project Design Features as the Project. The building foundation for Alternative 2 could result in reduced emissions during the concrete pour, in which case the Project's concrete pour mitigation measure would be modified or not required. As with the Project, the impact regarding construction pollutants would be less than significant.

(b) Operation

The Project would generate net new operational regional air pollutant emissions due to the use of on-site products, energy consumption and mobile sources (vehicles)

associated with its 794 residential units and 12,504 square feet of commercial uses in a total of 751,777 square feet of development. However, the level of emissions generated would be below the regional numeric indicators, and regional emissions would be less than significant prior to mitigation.

Alternative 2 would generate operational regional air pollutant emissions due to the similar activities associated with its 300 residential units and 12,504 square feet of commercial uses in a total of 249,618 square feet of development. Given the smaller size of Alternative 2's development, operation of Alternative 2 would generate fewer air pollutant emissions. Therefore, Alternative 2's impact with respect to net new operational emissions would be less than the Project's less than significant impact, as a smaller building with a reduction in the intensity of uses would be operating on the Project Site.

(iii) Exposure of Sensitive Receptors to Pollutant Concentrations

(a) Construction

Alternative 2 would involve the construction of a 25-story building with 249,618 square feet of development that would generate air pollutant emissions in proximity to sensitive uses.

As was discussed in the analysis of Project impacts, the Project's similar uses in a 70-story, 751,777 square-foot building would also generate air pollutant emissions during its construction phases. However, based on the Project's phasing and equipment schedule, compliance with SCAQMD Rule 403 and Rule 1113, implementation of AQ-MM-1 and AQ-PDF-2, maximum localized construction emissions for sensitive receptors would not exceed the localized screening indicators for criteria pollutants at the adjacent sensitive receptors. Further, TAC emissions including diesel particulate matter would also be less than significant as regards health risks to sensitive receptors.

Construction of Alternative 2 would involve less development and less extensive construction activities than would the Project and therefore would generate fewer air pollutant emissions. Alternative 2 would be required to implement the same Project Design Features as the Project and would also be required to comply with applicable regulations, which would reduce its air pollutant emissions. Therefore, Alternative 2 would have less impact than the Project's less than significant impact relative to criteria pollutant and diesel particulate concentrations.

(b) Operation

Under the Project, the maximum localized operational emissions for sensitive receptors would not exceed the localized screening indicators for criteria pollutants, without the need to implement any mitigation measures. Furthermore, Project operations would be required to comply with CARB and SCAQMD regulations to reduce the emission of TACs (occasional diesel emissions from an on-site emergency generator) to less than significant levels. The impact related to the formation of CO hotspots associated with

idling vehicles at surrounding intersections would also be less than significant without the need for mitigation measures. As such, under the Project, the impact is less than significant.

As Alternative 2 would generate fewer operational emissions than the Project, its impact would be less and, as is the case with the Project, its impact would be less than significant.

(iv) Other Emissions Affecting a Substantial Number of People

Alternative 2 and the Project would provide mixed-use development, including residential and commercial uses, that might generate other emissions such as odors. The analysis of the Project's impacts notes that the impacts of emissions other than odor that might occur with the Project are addressed under the above air quality analyses. The Project would not include notable odor producing uses (e.g., industrial uses). Odors associated with the Alternative 2 and Project uses might emanate from waste generation and disposal (e.g., trash cans, dumpsters) and occasional minor odors generated during food preparation activities. Such odors are typical, could be controlled and would be localized in the immediate Project vicinity, avoiding exposure to a substantial number of people.

As such, Alternative 2 and the Project would have a similar potential for generating other emissions and the number of people that would be subject to exposure. The impact of Alternative 2 and the impact of the Project regarding other emissions would be less than significant.

(c) Cultural Resources

(i) Historical Resources (Architectural/Built Environment)

Both the Project and Alternative 2 would demolish the five existing buildings on the Project Site, would add a new building larger in massing than the existing uses on the Project Site, and would require excavation into soils within or adjacent to the Project Site. None of the five existing buildings qualifies as an historical resource under State CEQA Guidelines Section 15064.5(a)(1) or (2), and none warrants consideration under State CEQA Guidelines Section 15064.5(a)(3). However, a historic water conveyance system (*Zanja* No. 8) is depicted on maps adjacent and to the west of the Project Site, potentially within the mid-block alley. For the purposes of this Project, the City is treating the *Zanja* No. 8 as a historical resource under State CEQA Guidelines Section 15064.5(a)(3).

Construction of the Project could potentially disturb subsurface resources related to the *Zanja* No.8 or other remnants of past activities at or proximate to the Project Site during demolition or excavation. Mitigation measures CULT-MM-1 through CULT-MM-5 include provisions for monitoring of excavation activities for the occurrence of resources, treatment of resources should they occur, reporting of finds should they occur, as well as additional treatment and reporting requirements to address the specific characteristics of the *Zanja* No.8. These mitigation measures would reduce a potentially significant impact

to historical resources or unique archaeological resources, as well as the *Zanja* No.8 conveyance system, to less than significant levels. Further, mitigation measure NOISE-MM-4 that would mitigate the vibration impact to residents across the alley would also reduce a potential vibration impact to remnants of the *Zanja* No.8 should it be present within the alley to a less than significant level.

As the analysis of the Project's impacts concludes, because the existing buildings are not historical resources, the Project would not have a direct impact on historical resources. Further, the Project would not have an indirect impact on historical resources. None of the historical buildings in the vicinity of the Project Site area is located immediately adjacent to the Project Site, and none would be physically affected by the Project. The Project's location, design, scale and massing would not obstruct historically or architecturally significant primary views to and from an adjacent resource that contributes to its eligibility as a historical resource, or be incompatible in scale, massing, materials or design with an adjacent historical resource such that its eligibility is substantially impaired.

Since it would also be developed at the Project Site, Alternative 2 would have a similar construction impact to that of the Project, and would require the same mitigation measures, CULT-MM-1 through CULT-MM-5, to address a potential significant impact to historical resources or unique archaeological resources, including the *Zanja* No.8, should one occur, Alternative 2 would reduce its potential impact to a less than significant level. Despite its smaller building massing, Alternative 2 could have a direct and indirect impact on architectural/built historic resources in the Project Site vicinity similar to that of the Project. Alternative 2 would be required to implement the same mitigation measures as the Project to reduce a potentially significant impact to historical resources or unique archaeological resources, as well as the *Zanja* No.8 conveyance system, to a less than significant level. Therefore, like the Project, Alternative 2's impact regarding historical resources would be less than significant with mitigation.

(ii) *Archaeological Resources*

Alternative 2 would require excavation for one subterranean parking level and foundation structures, as compared to the Project, which would require excavation for six levels of subterranean parking and foundation structures.

While no known archaeological resources are located on the Project Site, the Project Site is considered to have sensitivity for the occurrence of subsurface archaeological resources, including both prehistoric archaeological resources as well as historic-period resources related to previous residential use of the Project site. In addition, *Zanja* No. 8 is also depicted on maps as adjacent and to the west of the Project Site, potentially within the mid-block alley. For the purpose of this Project, the City of Los Angeles is treating the *Zanja* No. 8 as a historical resource under State CEQA Guidelines Section 15064.5(a)(3), and as possibly qualifying as a unique archaeological resource.

Archaeological resources are more likely to occur in the upper excavated soils and, as such, a potential impact could occur under both the Project and Alternative 2. Both the

Project and Alternative 2 would implement mitigation measures CULT-MM-1 through CULT-MM-5, and NOISE-MM-4, which would reduce a potentially significant impact to archaeological resources to a less than significant level.

However, because construction of Alternative 2 would not require the same extent of excavation activity as the Project, the potential impact on archaeological resources under Alternative 2 would be less than under the Project.

(iii) *Human Remains*

Alternative 2 would require excavation for one subterranean parking level and foundation structures, as compared to the Project, which would require excavation for six levels of subterranean parking and foundation structures reaching a depth of approximately 64 feet.

No human remains were identified during the pedestrian survey of the Project Site and no known human remains have been recorded within the Project Site or a 0.50-mile radius. The Project Site has been previously disturbed by the original construction of the existing buildings; and if present human remains would have likely been detected previously. However, although unlikely, Project grading and excavation into deeper previously undisturbed subsurface areas may encounter buried human remains. If such remains were to be encountered they would be protected under applicable regulations. PRC Section 5097.98, requires notification of the County Coroner in the event of the unanticipated discovery of human remains and a prescribed protocol for their disposition in accordance with applicable regulations, notification of the NAHC and subsequent tribal coordination if remains are determined to be of Native American descent.

With the implementation of applicable regulatory measures, both the Project and Alternative 2 would result in less than significant impact levels. Because human remains are more likely to occur in soil levels nearer to the surface, and these soils would be disturbed under both the Project and Alternative 2, the potential impact to human remains would be similar under both the Project and Alternative 2.

(d) *Energy*

(i) *Efficient Energy Consumption*

Alternative 2 would include 12,504 square feet of restaurant/retail uses and 300 residential units in 249,618 square feet of development, in comparison to the Project's 12,504 square feet of restaurant/retail uses and 794 residential uses in 751,777 square feet of development. Both Alternative 2 and the Project would consume energy resources.

As the analysis of the Project's impacts concludes, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy requirements would not substantially affect local and regional supplies or capacity. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements such as the Title 24 standards and CALGreen

Code. Consistent with the requirements for ELDPs, the Project would result in energy consumption reductions as it is a mixed-use development located on an urban infill site that would achieve LEED Gold certification; and incorporating design features that would reduce energy consumption.

While Alternative 2 might not meet the same energy efficiency standards as the Project, it would be expected to include highly efficient energy saving features per current practices and current building energy efficiency code standards, and include the same automobile fuel efficiencies associated with access to alternative modes of transportation as the Project. With a reduction in size of approximately 67 percent, Alternative 2 would generate lower energy demand than would the Project, and like the Project, its impact would be less than significant.

(ii) Conflict with Plans for Renewable Energy or Energy Efficiency

The Project would comply with existing energy standards; would include a project design and building operations that incorporate energy-conservation measures beyond those otherwise required and would not conflict with adopted energy conservation plans.

The Project would be designed to meet the USGBC LEED Gold Certification including energy performance optimization features such as reducing building energy demand by a minimum of 5 percent for new construction compared to the 2016 Title 24 Building Energy Efficiency Standards. Among other features it would installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent, incorporate heat island reduction strategies such as high-reflectance and vegetated roofs for the Project roof areas, provide water efficient fixtures and landscaping to reduce indoor water usage, and an HVAC system that would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain.

While Alternative 2 might not meet the same energy efficiency standards as the Project, it would be expected to include highly efficient energy saving features per current practices and current building energy efficiency code standards, and include the same automobile fuel efficiencies associated with access to alternative modes of transportation as the Project. As such, Alternative 2 would also be in compliance with plans for renewable energy and energy efficiency. As with the Project, the impact of Alternative 2 would be less than significant.

(iii) Relocation or Expansion of Energy Infrastructure

Alternative 2 would include 12,504 square feet of restaurant/retail uses and 300 residential units in 249,618 square feet of development, in comparison to the Project's 12,504 square feet of restaurant/retail uses and 794 residential uses in 751,777 square feet of development. Both Alternative 2 and the Project would utilize energy infrastructure to accommodate their respective demand for energy resources.

With its larger development, the Project's electricity and natural gas demand is expected to represent a small fraction of LADWP's and SoCalGas' energy supplies; and the service provider's existing infrastructure, and planned electricity and natural gas supplies would be sufficient to meet the Project's demand for electricity and natural gas. The Project would not result in an increase in demand for electricity or natural gas services that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

With a reduction in size of approximately 67 percent, Alternative 2 would generate a lower level of energy consumption than would the Project and would therefore place less demand on available supplies and distribution infrastructure capabilities than would the Project. As is the case with the Project, the impact would be less than significant.

(e) *Geology and Soils*

(i) *Adverse effects associated with surface fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides.*

As the analyses for the Project show, Project Site is not bisected by an active or potentially active fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, and the proposed structures for both Alternative 2 and for the Project would derive support from the underlying bedrock, such that fault rupture and liquefaction would not be potential hazards. However, because the Project Site is located within the seismically active Southern California Region, any new structures associated with either Alternative 2 or the Project would be subject to strong seismic ground shaking. Like the Project, Alternative 2 would be designed to comply with CBC and Los Angeles Building Code requirements, including the preparation of a Final Geotechnical Report with final design recommendations. The Final Geotechnical Report for both the Project and Alternative 2 would be prepared by a California-registered geotechnical engineer and submitted to the LADBS for review prior to issuance of a grading permit.

Through compliance with existing City Building Code regulations, impacts related to adverse effects associated with surface fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides under both the Project and Alternative 2 would be less than significant. Since existing seismic conditions would be the same under both the Project and Alternative 2, impact with respect to these existing geological and seismic hazard conditions that might cause adverse effects would be similar under the Project and Alternative 2.

(ii) *Soil Erosion or Loss of Topsoil*

Alternative 2 would involve redevelopment of the Project Site, including excavation for one level of subterranean parking. Construction associated with both the Project and Alternative 2 would increase the potential exposure of below grade soils to the elements

and increase the risk of soil erosion at the Project Site. As the Project site is developed and paved, there is no notable topsoil present on the Project Site.

Compliance with existing SCAQMD, RWQCB, and Building Code regulations for dust and erosion control under both the Project and Alternative 2 would ensure that neither the Project nor Alternative 2 would result in substantial erosion with the exposure of sub-grade soils. However, Alternative 2 would require excavation for only one level of subterranean parking and building foundation structures, as compared to the excavation of six levels of subterranean parking and foundation structures under the Project.

Compliance with existing regulations that mandate preparation and implementation of dry and wet weather erosion control plans would ensure that the impact regarding soil erosion would be less than significant under both Alternative 2 and the Project. Nevertheless, because construction of Alternative 2 would require less excavation activity and potential exposure of soils, the impact of Alternative 2 related to soil erosion would be less than under the Project.

(iii) Unstable Geologic Units

Alternative 2 would require excavation for one level of subterranean parking and building foundation structures, as compared to the excavation of six levels of subterranean parking and foundation structures under the Project. The Project Site is not subject to unstable geologic units, such as liquefaction or unstable soils.

Although unstable geologic units are not present, all required excavations for both the Project and Alternative 2 would be sloped and properly shored in accordance with the applicable provisions of the CBC incorporated into the City's Building Code. These regulatory measures would minimize the potential for site hazards from unstable geologic conditions during excavation activities. Both the Project and Alternative 2 would comply with existing regulations and the recommendations of an approved Final Geotechnical Report.

Compliance with existing regulations and recommendations of the Final Geotechnical Report would ensure that impact regarding unstable geologic units would be less than significant for both the Project and Alternative 2. Although the impact associated with both the Project and Alternative 2 would be less than significant, because Alternative 2 would entail less excavation, its impact would be incrementally less than under the Project.

(iv) Expansive Soils

Alternative 2 would require excavation for one level of subterranean parking and building foundation structures, as compared to the excavation of six levels of subterranean parking and foundation structures under the Project.

The Project Site is not underlain by soils with the potential for expansion and corrosion. Even so, verification of soil conditions and appropriate final design recommendations would be included in the Final Geotechnical Report for both Alternative 2 and the Project.

The Final Geotechnical Report would require approval by LADBS prior to issuance of a grading permit. With the implementation of the recommendations in the Final Geotechnical Report, any impacts associated with expansive or other soils conditions would be less than significant for both the Project and Alternative 2.

Since the Project Site is not underlain by expansive soils and because both the Project and Alternative 2 would comply with the recommendations in the Final Geotechnical Report, there would be no impact related to expansive soils under both the Project and Alternative 2. The impact with respect to expansive soils would be similar under both Alternative 2 and the Project.

(v) *Support for Septic Tanks or Alternative Waste Water Disposal where Sewers are not Available*

The Project Site is located in a developed area of the City, which is served by a wastewater collection, conveyance, and treatment system operated by the City. Furthermore, no septic tanks or alternative disposal systems are necessary for the Project, nor are they proposed under this Alternative. Therefore, similar to the Project, no impact would occur.

(vi) *Unique Paleontological Resources and Geologic Features*

Alternative 2 would require excavation for one subterranean parking level and foundation structures, as compared to the Project, which would require excavation for six levels of subterranean parking and foundation structures reaching a depth of approximately 64 feet.

The Project Site is developed and contains no unique geologic features. The Project Site's subgrade older alluvium is determined to have a high sensitivity for fossils, and excavation at depths of greater than 15 feet have the potential to intercept paleontological resources. As a result, construction of either the Project or Alternative 2 could directly or indirectly destroy a unique paleontological resource. Both the Project and Alternative 2 would implement mitigation measures GEOL-MM-1, GEOL-MM-2, GEOL-MM-3 and GEOL-MM-4, which would include provisions for monitoring of excavation activities for the occurrence of resources, treatment of resources should they occur, and reporting of finds should they occur.

Implementation of mitigation measures GEOL-MM-1, GEOL-MM-2, GEOL-MM-3 and GEOL-MM-4 would reduce a potential impact on paleontological resources to less than significant levels under both the Project and Alternative 2. However, because construction of Alternative 2 would not require the same depth of excavation as under the Project, the potential impact on paleontological resources would be less under Alternative 2 than under the Project.

(f) *Greenhouse Gas Emissions (Emissions Impacts and Potential Conflicts with Plans for Reducing Emissions)*

Alternative 2 would include the development of 249,618 square feet of development with residential and restaurant/retail uses and one level of subterranean parking that would generate net GHG emissions due to construction and operational activities. The Project would include 751,777 square feet of development with similar uses and six levels of subterranean parking that would also generate net GHG emissions due to construction and operational activities.

As calculated for the Project, approximately 751,777 square feet of floor area would generate approximately 8,654 MTCO_{2e} net increase in operational emissions (inclusive of amortized construction emissions), assuming the implementation of PDFs. Alternative 2 would provide approximately 249,618 square feet in floor area (a floor area decrease of approximately 67 percent), and, thus, would result in proportionally less occupancy and lower operational and construction emissions. Both the Project and Alternative 2 would incorporate AQ-PDF-1, which includes green building features in excess of those required under standard regulations. These would include enhance building energy efficiency and promote non-motorized alternatives to conventional fuel automobiles. Both the Project and Alternative 2 would also implement project design feature WS-PDF-1 to reduce water consumption, that would incrementally reduce indirect GHGs associated with energy consumption occurring during water extraction, conveyance and treatment. Both the Project and Alternative 2 would be consistent with, and would not conflict with, applicable strategies outlined in CARB's 2017 Climate Change Scoping Plan, SCAG's 2016-2040 RTP/SCS, Green New Deal (Sustainable City pLAn 2019), and Green Building Code. These plans include guidelines for reducing GHG emissions and also encourage development patterns that support and encourage the use of alternative modes of transportation, thus reducing VMT.

As an ELDP, the Project is committed to offset its generation of GHG emissions so as to result in a net-zero increase in GHG emissions. Both the Project and Alternative 2 would result in a less than significant impact with respect to GHG emissions. However, unlike the Project, Alternative 2 would not be an ELDP given its reduced size and likely inability to commit to meeting the ELDP requirements. Notwithstanding, Alternative 2 would generate proportionately lower GHG emissions, and its impact would be considered less than that of the Project, although Alternative 2 would not purchase CO₂ credits to offset emissions to be GHG net-zero, unlike the Project.

(g) *Hazards and Hazardous Materials*

(i) *Routine Transport, Use, or Disposal of Hazardous Materials*

Both the Project and Alternative 2 would require the use of products for construction and operation that are routinely used in performing everyday household and commercial activities consistent with regulations. However, neither the Project nor Alternative 2 would

require the use of hazardous materials beyond these routinely used products, and neither would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. As such, the impact regarding hazardous materials would be less than significant under both the Project and Alternative 2.

Since the impact would be less than significant under both the Project and Alternative 2, and since Alternative 2 would entail approximately 67 percent less overall floor area as compared to the Project, the development of Alternative 2 would reduce the use of the common construction and household products, the impact under Alternative 2 would be less than that of the Project.

(ii) Upset and Accident Conditions

Alternative 2, like the Project, involves demolition and construction activities that could potentially expose workers to airborne contaminants, low concentrations of VOCs, and potential existing soil contaminants and gases, as well as ACMs and LBPs in the existing buildings.

Both the Project and Alternative 2 would be subject to regulations regarding the identification, and where applicable, procedures for the collection, transport and disposal of ACMs and LBPs. Both the Project and Alternative 2 would implement mitigation measure HAZ-MM-1, which requires preparation of a SMP to ensure that all areas of the Project Site have been properly evaluated and to provide added guidance to contractors for appropriate screening, and management of potentially impacted or impacted soils that may be encountered during grading and excavation activities. To avoid the risk associated with removal of potential USTs and related infrastructure, both the Project and Alternative 2 would implement mitigation measure HAZ-MM-2, which requires that earthwork activities in the vicinity of potential USTs be preceded by potholing prior to construction to verify the potential occurrence and characteristics of the Site conditions. With compliance with existing regulations, and implementation of mitigation measures HAZ-MM-1 and HAZ-MM-2, the impact with respect to risk of upset and accident conditions under either the Project or Alternative 2 would not pose a hazardous threat to the population.

As such, the impact related to upset and accident conditions would be reduced to a less than significant levels after mitigation under both the Project and Alternative 2. Also, because both the Project and Alternative 2 would involve the same scope of demolition, and because potential soils contaminants, gases and USTs would occur in the shallower soils levels that would be affected by both the Project and Alternative 2, the impact related to risk of upset and hazards under both the Project and Alternative 2 would be similar.

(iii) *Use of Hazardous Materials within One-quarter Mile of an Existing School*

The Project Site is located approximately 0.17 miles from the LAUSD Los Angelitos Early Education Center and the LA Child Care and Development Council School, respectively. Excavation and demolition associated with both the Project and Alternative 2 could potentially cause hazardous materials to be released (see subsection g(ii), above) at the Project Site that would require transport to off-site locations. If not properly handled during transport from the Project Site such materials could potentially pose a threat to the nearby schools. Both Alternative 2 and the Project would implement mitigation measures HAZ-MM-1 and HAZ-MM-2.

The implementation of these measures would reduce a potential impact to less than significant levels under both the Project and Alternative 2. As discussed under subsection g(ii), above, risk of upset and hazards would be similar under both the Project and Alternative 2. Therefore, the less than significant impact (with mitigation) associated with the use of hazardous materials within one-quarter mile of a school would be similar under both the Project and Alternative 2.

(iv) *Hazardous Materials Database Listings*

Both the Project and Alternative 2 would involve excavation and demolition activities within the Project Site. As described in the analysis of the Project's impacts, the Project Site appears on one hazardous materials site list. Even so, the database indicates that no violations were listed in connection with the use or disposal of hazardous materials, and that materials had been properly disposed of previously. In the event construction were to encounter hazardous materials in the soil, both the Project and Alternative 2 would implement mitigation measures HAZ-MM-1 and HAZ-MM-2, which would reduce potential impacts related to hazardous materials to less than significant levels.

No hazardous materials would be utilized in the day to day operations of either the Project or Alternative 2 other than the typical household, commercial, vehicle, pool and spa, and landscaping maintenance materials. These materials are not hazardous materials pursuant to Government Code Section 65962.5, and therefore neither the Project nor Alternative 2 would cause the Project Site to be included on such a list.

Neither the Project nor Alternative 2 would create a significant hazard to the public or the environment related to hazardous conditions identified in a database compiled pursuant to California Government Code Section 65962.5. The impact related to listed conditions would be less than significant with mitigation and similar under both the Project and Alternative 2.

(v) *Proximity to an Airport or Private Airstrip*

The two nearest airports to the Project Site are the Hawthorne Municipal Airport and Los Angeles International Airport, located approximately 9 miles and 10 miles to the southwest, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base

Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project Site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. Both the Project and Alternative 2 would result in no impact regarding airport-related safety hazards for people residing or working in the Project vicinity.

(vi) *Emergency Response/Evacuation Plans*

Both the Project and Alternative 2 would develop the Project Site, adding net new population and additional activity to the Project Site area. However, neither the Project nor Alternative 2 would include land uses that would create a potential hazard to the community (such as an airport, oil refinery, or chemicals plant), or require the closure of any existing streets; therefore, neither would represent a significant impediment to emergency response and evacuation of the local area. Land uses under either the Project or Alternative 2 would not require a new, or interfere with an existing, risk management, emergency response, or evacuation plan. The impact related to emergency response plans under both the Project and Alternative 2 would be less than significant.

However, Alternative 2 would reduce the scale of construction activities as compared to the Project, and result in less of a population increase and less vehicular traffic than under the Project. Alternative 2 would thus result in less traffic on, or demand on, evacuation routes than under the Project. As such, the impact related to emergency response and evacuation plans would be less under Alternative 2 than under the Project.

(vii) *Wildland Fire Hazards*

The Project Site is located in a highly urbanized area. No wildlands are present on the Project Site or in the surrounding area. Furthermore, the Project Site is not located within a City-designated wildfire hazard area, nor is it located within a State Responsibility Area or an area designated as a Very High Fire Hazard Severity Zone. Therefore, the Project and Alternative 2 would have no impact regarding the exposure of people or structures to direct or indirect risk involving wildland fires.

(h) *Hydrology and Water Quality*

(i) *Water Quality Standards and Groundwater Quality*

(a) *Construction*

Both the Project and Alternative 2 would include construction activities, including earth moving, maintenance/operation of construction equipment, potential dewatering, and handling/storage/disposal of materials, that could contribute to pollutant loading in stormwater runoff from the construction site. Also, wind could convey exposed and stockpiled soils at the construction site into nearby storm drains during storm events, and on-site water activities for dust suppression purposes could contribute to pollutant loading in runoff from the construction site. However, a potential impact would be reduced to less than significant levels for both the Project and Alternative 2 through compliance with

regulatory requirements and BMPs, and Building Code grading procedures, which would ensure that neither the Project nor Alternative 2 would cause exceedances of water quality standards.

As such, the impact with respect to construction-phase water quality standards would be less than significant under both the Project and Alternative 2. However, because the scale of excavation and therefore the potential exposure of excavated soils to the elements would be less under Alternative 2, its potential impact with respect to water quality standards during construction would be less than under the Project.

(b) Operation

Both the Project and Alternative 2 would incorporate a drainage collection and conveyance system that would detain and treat/filter runoff in compliance with the City's LID Manual requirements to reduce the quantity of, and improve the quality of, rainfall runoff leaving the Project Site. With the implementation of such system, both the Project and Alternative 2 would result in an improvement in the water quality of stormwater runoff from the Project Site. The impact related to water quality standards would be similar and less than significant under both the Project and Alternative 2.

(ii) *Changes in Groundwater Supplies or Recharge*

Neither the Project nor Alternative 2 would include groundwater withdrawal. Excavation for the foundations and the subterranean garage during construction of both the Project and Alternative 2 would have the potential to intercept perched groundwater and, as such, some groundwater removal may be required during construction. However, as the analysis of the Project's potential impacts shows, even with the Project's deeper excavation, any removed groundwater would not be part of the underlying water table and would not affect groundwater supplies. In addition, both Alternative 2 and the Project would incorporate an on-site drainage system with required LID Ordinance BMPs. This system may include a drywell system that would provide infiltration to the groundwater system and, as such, contribute a beneficial recharge during operation. Neither the Project nor Alternative 2 would cause depletion of groundwater supplies or interfere with groundwater recharge, and both the Project and Alternative 2 may potentially increase groundwater recharge compared to existing site conditions. The impact regarding groundwater recharge or depletion under both Alternative 2 and the Project would be less than significant.

However, because Alternative 2 would require shallower excavation for subterranean structures, its potential to encounter perched groundwater would be less than under the Project. Therefore, the impact regarding groundwater supplies would be less under Alternative 2 than under the Project.

(iii) *Alteration of Drainage Pattern Resulting in Erosion, Siltation, or Flooding*

(a) Construction

Alternative 2, like the Project, would include construction activities that could contribute to erosion or siltation if soils are exposed during development of the Project Site. Construction activities for the Project would include excavation of approximately 80,520 cy of soil, all of which would be exported off-site, for the development of six subterranean parking levels and foundation structures. In contrast, Alternative 2 would require excavation for one subterranean parking level and building foundations. All excavation activities would have the potential to temporarily alter existing drainage patterns and flows within the Project Site by exposing the underlying soils and causing the Project Site to be temporarily more permeable. As a result, there would be little or no runoff into the adjacent municipal storm drain system and temporary drainage controls would be required to prevent ponding and uncontrolled runoff of loose soil materials and construction wastes. Since the Project Site and surroundings are entirely urbanized, there are no nearby unlined or natural drainage courses that could be affected by site runoff during construction. Both the Project and Alternative 2, would be required to implement BMPs and erosion control measures, including compliance with the City's Development Best Management Practices Handbook, Part A, to prevent uncontrolled runoff and pollution. With implementation of BMPs and compliance with City regulations, changes in on-site drainage patterns during construction would not result in erosion, siltation, or flooding under both the Project and Alternative 2 and the impact would be less than significant.

However, because excavation volumes would be substantially less under Alternative 2 than under the Project, the potential impact associated with alteration of a drainage pattern resulting in erosion or siltation during construction would be less than under the Project.

(b) Operation

Alternative 2, like the Project, would result in post-construction surface drainage that would flow into the existing adjacent municipal storm drain system after on-site detention and filtration. Both the Project and Alternative 2 would be constructed on an already developed site, within the existing urban street grid network and, as such, neither the Project nor Alternative 2 would substantially alter the existing drainage pattern of the Project Site, the area, or receiving waters. Both the Project and Alternative 2 would collect rainwater within landscaping areas and through the collection of water within in hardscape areas via gutters. Under either the Project or Alternative 2, collected water would be conveyed through an on-site drainage system that would reduce existing runoff, with control of soils within the landscaped areas. Both the Project and Alternative 2 are estimated to decrease the existing runoff from an estimated 2.73 cfs to an estimated 2.70 cfs, owing to the retention afforded by the proposed LID system, a reduction as compared to the volume of existing surface runoff from the Project Site.

Therefore, development of the Project or Alternative 2 would not alter the drainage pattern in the post-project condition. The impact associated with alteration of a drainage pattern during operation would be less than significant and similar under both the Project and Alternative 2.

(iv) *Alteration of Drainage Pattern Resulting in Exceedance of Stormwater Drainage System Capacity or Impedance of Flood Flows*

(a) Construction

Both the Project and Alternative 2 would cause a temporary increase in permeable surfaces during construction that would reduce, rather than increase, off-site runoff from the Project Site during a portion of the construction. In accordance with BMPs to be implemented during construction to manage runoff flows and avoid on- or off-site flooding, neither the Project nor Alternative 2 would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

As such, the impact regarding the stormwater drainage system capacity under both the Project and Alternative 2 during construction would be less than significant. Although the duration of construction activities would be less under Alternative 2 than under the Project, the maximum off-site flow of Alternative 2 would be similar and the impact regarding stormwater drainage system capacity would be similar.

(b) Operation

Both the Project and Alternative 2, would maintain existing drainage patterns at the Project Site. No new off-site storm drainage infrastructure would be required. The existing drainage systems are sufficient to accommodate the runoff from a 50-year storm event. The Q_{50} peak flow rate of stormwater runoff from the Project Site under either the Project or Alternative 2 would be expected to decrease slightly from an estimated 2.73 cfs to an estimated 2.70 cfs, owing to the retention afforded by the proposed LID system. Therefore, the volume of stormwater runoff from the Project Site requiring conveyance by the existing off-site storm drain system would decrease to the same extent under both the Project and Alternative 2.

As such, the impact related to the capacity of the off-site stormwater drainage system would be less than significant and similar under both the Project and Alternative 2.

(v) *Pollutant Release in Flood Hazard, Tsunami, or Seiche Zones*

According to ZIMAS, the Project Site does not lie within a flood zone; and the DWR indicates that the Project Site does not lie within a 100-year floodplain. The Project Site is located in an area of relatively flat topography and urban development, with no hillsides or enclosed bodies of water nearby, and as such, there is no potential for inundation resulting from a seiche or mudflows.

Therefore, development of the Project and Alternative 2 would not be subject to the release of pollutants due to such related events. The impact of the Project and Alternative 2 would be similar and less than significant.

(vi) *Implementation of Water Quality Control Plans*

The Project falls within the jurisdiction of water quality plan regulations that assure that development projects are in compliance with clean water policies. These plans and regulations include the LARWQB (Region 4) Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties; and the NPDES stormwater permitting program. Also, the City is included within the Water Replenishment District of Southern California, which pursuant to the requirements of the SGMA, has submitted an analysis that demonstrates compliance with applicable portions of the California Water Code and consistency with the SGMA's objectives by promoting sustainable management of the groundwater in the Central Sub-basin.

The Project would incorporate into its design an on-site drainage system that would meet regulatory requirements of the applicable plans for the protection of water resources. The on-site drainage system would collect rainfall from the rooftop and terrace areas, treat/filter the water flow and convey it to the groundwater and/or local storm drain system. This on-site drainage system would provide BMPs in accord with the City's LID requirements. The Project would have a less than significant impact on both surface and groundwater quality and groundwater supplies and recharge. Project implementation would reduce the amount of storm-water from the Project Site and improve its quality, in compliance with the applicable plans and regulations.

Alternative 2 would be subject to the same LID requirements and implementation of BMPs as the Project. Therefore, the impact of the Project and Alternative 2 would be similar and less than significant.

(i) *Land Use and Planning*

(i) *Division of an Established Community*

The Project Site is located within the boundaries of the Community Plan Area, in a highly urbanized area of Downtown, and is located within the existing street grid that interconnects the Downtown Area. Existing development on the Project Site includes five commercial buildings and associated surface parking.

Alternative 2 and the Project would both redevelop the already developed Project Site in conformance with the existing General Plan land use designation and zoning and would be similar to other large mixed-use development projects recently constructed in the area.

Neither Alternative 2, nor the Project, would close or re-route existing streets; and both would comprise an infill development within the existing grid pattern.

Alternative 2 and the Project would have a similar, and less than significant, impact regarding the division of an existing community.

(ii) Consistency or Conflict with a Land Use Plan, Policy or Regulation

Both the Project and Alternative 2 would demolish the existing buildings and develop the Project Site with residential and restaurant/retail uses. Alternative 2 would include 249,618 square feet of development as compared to the Project's 751,777 square feet of development, representing a reduction of approximately 67 percent as compared to the Project. Alternative 2 would include 12,504 square feet of restaurant/retail uses and a public plaza at ground level and 300 residential units within 25 stories (five Podium levels and a 20-story tower), in comparison to the Project's 12,504 square feet of restaurant/retail uses, a public plaza at ground level, and 794 residential units within 70 stories (nine podium levels and a 61-story tower).

As described in the analysis of Project impacts, the Project's mix of uses would be consistent with the existing zoning for the Project Site. The Project would not conflict with plans, policies and regulations developed by SCAG or the City for reducing impacts on the physical environment, or by establishing land use patterns and relationships that reduce environmental impacts. Generally, the applicable plans, policies and regulations are intended to establish the Downtown area as a "Downtown Center," an area of increased density within a City-identified TPA and a SCAG-identified HQTa. The intent is to create population density at key locations in the City to support regional public transportation systems, reduce vehicle miles traveled, provide efficiency in the provision of infrastructure, and accommodate City growth in a manner that reduces impacts on the City's existing low density neighborhoods. Another purpose of the plans is to create a vibrant Downtown with complementary uses and an attractive physical design that supports pedestrian activity.

The provision of the residential development in South Park by both the Project and Alternative 2 would support bicycle and walkable access to the nearby restaurants and shopping, the Financial District, entertainment uses such as LA LIVE and the Staples Center, nearby transit, services, commercial uses, services and parks, thus reducing the use of private vehicles for activities, creating symbiotic relationships that contribute to the vibrancy of the Community Plan Area and providing increased density to support the use of public transportation. The street level restaurant/retail uses with adjacent street improvements provided by both the Project and Alternative 2 would contribute to the active pedestrian milieu that is being created in the Downtown area.

Although the Project's new development would implement TFAR provisions as they are intended to accommodate increased population density in a manner consistent with the vision for the South Park neighborhood, Alternative 2 would be developed according to

the FAR provided under the existing zoning designation. Alternative 2 would provide the same uses as the Project and result in similar land use relationships in the Project vicinity, albeit with less density. While the reduced density of Alternative 2 would not achieve the same density in HQTAs as the Project would, its development would, like the Project, be consistent with, and not conflict with, the applicable plans and regulations.

Since the Project provides the greater mixed-use density planned for high quality transit areas/transit priority areas, the Project brings the greater benefits related to higher levels of reduced trips. Nevertheless, both Alternative 2 and the Project would have similar VMT rates, consistent with lower VMTs that SCAG's 2016 RTP/SCS seeks to achieve. At the same time, the Project would result in a greater increase in air pollutions and GHG emissions. Nevertheless, as both the Project and Alternative 2 would be consistent with, and would not conflict with, land use plans policies and regulations, their impact regarding land use would be less than significant. The impact of the Project and the impact of Alternative 2 regarding adopted plans that are intended to reduce environmental effects would be similar.

(j) *Noise*

(i) *Temporary or Permanent Increase in Noise Levels in Excess of Established Standards*

(a) *Construction*

The Project would involve the development of a 70-story building and six levels of subterranean parking, which would generate noise associated with construction activities related to excavation and building development. As described in the analysis of the Project's impacts, the Project's construction activities, e.g., operation of heavy equipment, would exceed applicable noise impact thresholds at adjacent residential uses (noise-sensitive receptor locations R1 and R2). The Project would implement mitigation measures NOISE-MM-1 and MM-NOISE-2, requiring the use of noise barriers to reduce construction noise levels by at least 10 dBA, and mitigation measure MM-NOISE-3, requiring that construction equipment be equipped with noise mufflers that must achieve reductions in noise levels of at least 8 dBA. While these mitigation measures would reduce the Project's construction noise impact, they would not reduce the Project's construction noise levels below the applicable noise standards at all locations. Therefore, the construction noise impact under the Project would remain significant and unavoidable.

Like the Project, construction of Alternative 2's 25-story building and one level of subterranean parking would also generate noise associated with construction activities related to excavation and building development. Because Alternative 2 would reduce the overall scale of development, the duration of its construction activities would be shorter than under the Project. However, Alternative 2 would require the use of construction equipment similar to that of the Project, and its construction activities would occur at the same distances from nearby noise sensitive uses. Therefore, the noise level on a maximum day of construction activity under Alternative 2 would be similar to that under

the Project. Alternative 2 would implement the same mitigation measures as the Project; however, as is the case with the Project, the noise impact of Alternative 2 would remain significant and unavoidable, even after mitigation. Since the duration of construction activity would be shorter under Alternative 2, the impact related to construction noise would be less under Alternative 2 than under the Project.

(b) Operation

Alternative 2 would include the development of 12,504 square feet of restaurant/retail uses and 300 residential units whose associated activities would generate noise impacts during operation.

The Project would include the development of 12,504 square feet of restaurant/retail uses but 794 residential units, whose associated activities would also generate noise impacts during operation. As described in the analysis of Project impacts, the Project's composite noise associated with human activity at on-site open spaces, the building's fixed mechanical equipment, above-grade parking, loading and garbage collection, emergency generators, and on- and off-site traffic would increase the exterior ambient noise level by approximately 1.4 dBA at the closest residences in the area (sensitive receptor location R1). This increase would be less than the City's ambient noise threshold of 5 dBA for composite noise. As such, the Project's operational noise impact would be less than significant.

Due to its reduction in residential units as compared to the Project, Alternative 2 would result in less on- and off-site traffic and a lower occupancy of the Project Site than would the Project. As such, its impact associated with operational noise would also be less than significant. However, because its composite noise level would be lower than under the Project, Alternative 2 would result in less of an operational noise impact than would the Project.

(ii) *Generation of Groundborne Vibration and Noise*

(a) Construction

Both the Project and Alternative 2 would include excavation and building construction activities that would have the potential to generate low levels of groundborne noise and vibration due to the operation of heavy equipment, which would generate vibrations that propagate through the ground and diminish in intensity with distance from the source. Both the Project and Alternative 2 would implement mitigation measures NOISE-MM-3 and NOISE-MM-4, which would restrict the distances in which heavy construction equipment could operate in proximity to sensitive receptor locations R1 and R2. These mitigation measures would also limit the vibration characteristics of the heavy equipment. The reduction in potential vibration levels would also limit the extent of groundbourne vibration that could occur within the alley adjacent to the Project Site, and therefore, remnants of the *Zanja* No. 8, should such remnants be present beneath the alley.

Implementation of these mitigation measures would reduce construction the vibration impact to less than significant levels under both the Project and Alternative 2 at both the residential locations and potential remnants of the *Zanja* No. 8. However, because the scale and duration of construction would be reduced under Alternative 2, the groundborne vibration and noise impact would be lower under Alternative 2 than under the Project.

(b) Operation

Both the Project and Alternative 2 would include typical stationary equipment, such as air handling units, condenser units and exhaust fans that have the potential to generate low levels of vibration and groundborne noise. Such equipment would be located within the building and shielded or on rooftop levels; and would be located a minimum of 50 feet from the nearest sensitive receptor. Delivery trucks and vans that would use the alley and loading dock areas of the Project would be similar to the types of delivery trucks and vans that already currently use the alley under existing conditions for the existing multi-family uses (e.g., at 1001 S. Olive Street).

Under the Project, with its greater amount of development and site activity, vibration would be substantially below 0.5 peak particle velocity (PPV), the threshold for structural damage at the nearest vibration-sensitive residential buildings, and it would be under the threshold of 72 VdB that would result in human annoyance. Operational vibration levels under the Project would not be anticipated to result in damage to the *Zanja* No. 8. Groundborne noise levels would be less than the groundborne vibration levels and would also be less than significant. As such, operation of the Project would not result in exposure of persons to or generation of groundborne vibration and noise that would exceed threshold criteria.

Alternative 2 would substantially reduce the size and residential use of the development on the Project Site as compared to the Project. The vibration impact associated with operation related to structural damage and human annoyance under both the Project and Alternative 2 would be less than significant. Alternative 2 would have similar types of stationary equipment and delivery trucks using the alley and loading dock areas as the Project; therefore, the operational groundborne vibration and noise impact would be similar to the Project.

(iii) *Exposure of People to Excessive Noise Levels Near Airports*

The two nearest airports to the Project Site are the Hawthorne Municipal Airport and Los Angeles International Airport, located approximately 9 miles and 10 miles to the southwest, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project Site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. As such, there would be no exposure of Project Site population to noise associated with such facilities. Both

the Project and Alternative 2 would result in no impact regarding airport/air-facility noise and the impact for the two uses would be similar.

(k) *Population and Housing Growth*

Based on the citywide average multi-family household size of 2.43, Alternative 2's 300 residential units would generate approximately 729 residents. Its development would also result in an estimated increase of approximately 34 net employees.¹²

In comparison, as discussed above, the Project's 794 residential units would generate approximately 1,929 residents, using the same household size factor. The Project's increase would be well within SCAG's population growth projections for the City and would represent approximately 1.3 percent of SCAG's estimated growth in City population between 2017 to 2023, and 0.3 percent of SCAG's estimated population increase for the City between 2017 and 2040. Similarly, as discussed above, the Project's 794 new dwelling units would be well within SCAG's housing growth projections for the City and would represent approximately 1.0 percent of the housing growth in the City between 2017 and 2023, and approximately 0.3 percent of the growth between 2017 and 2040. The Project's employment increase of 49 employees would represent approximately 0.04 percent of the employment growth in the City between 2017 and 2023, and approximately 0.01 percent of the growth between 2017 and 2040. As such, Project-related population growth in the in the City would be within SCAG's population and housing projections. Thus, this growth is planned and would not represent induced or unplanned growth beyond that otherwise occurring.

The Project would not require the displacement of housing units or residential population. The Project would increase the number of Project Site employees by approximately 49 new workers. The small number of employees would be consistent with the number of new employees expected for the City in the SCAG projections. By providing a large number of new housing units but a small increase in employment, the Project would help bring the jobs/housing ratio in the Downtown Area closer to the regional job/housing ratio, indicating that the Project is consistent with SCAG policies supporting development that provides work locations and residential locations in proximity to one another to reduce vehicle miles traveled. The Project's impact regarding population and housing growth being consistent with demographic projections and the placement of housing within the region would be less than significant.

¹² As calculated in Section IV.K, *Population and Housing*, of this Draft EIR, the Project would include a net increase of approximately 49 new employees. This accounts for 34 employees in the ground floor restaurant/retail uses, approximately 50 residential support employees, and 35 existing employees that would be netted out of the increase. The estimate of 50 residential support employees is based on an estimate of the number of employees it would take to operate the building. Alternative 2, would include the same 34 employees for the restaurant/retail uses and net-out the same 35 existing employees. While Alternative 2 includes only 300 residential uses in contrast to the Project's 791 residential units, the reduction in staffing for the smaller residential program would not result in a proportionate reduction in staffing, as these positions are more focused on meeting needed functions than the size of the building. It is assumed that 35 residential staff might be used, resulting in a net increase of 34 new employees for Alternative 2.

The number of residential units and population growth under Alternative 2 would be approximately 62 percent less than under the Project and, as such, would also not exceed SCAG population and housing projections. The location of the new, higher density housing in the Downtown area under either the Project or Alternative 2 would be consistent with SCAG and City policies supporting development that increases residential density of Downtown in order to support greater use of public transit, and fewer vehicle miles traveled. However, because the Project would provide more housing, with a relatively similar number of employees, Alternative 2, would not contribute to an improvement in the balance of jobs/housing ratio within the City to the same extent as the Project would.

Nonetheless, Alternative 2 would, like the Project, be consistent with population and housing projections, and would not conflict with policies directing growth within the City. Therefore, the impact of Alternative 2 would be less than under the Project, and also less than significant.

(I) *Public Services*

(i) *Fire Services*

Alternative 2 would include 249,618 square feet of development on the Project Site within a residential tower reaching 300 feet in height, containing 300 residential units and 12,504 square feet of ground-level commercial uses.

In comparison, the Project would include 751,777 square feet of development on the Project Site within a residential tower reaching 810 feet in height, containing 794 residential units and ground-level commercial uses. This development would increase the number of service calls by emergency responders. However, analysis of the Project's impact on fire protection and emergency services concludes that the Project Site provides adequate access for fire services and would have sufficient water flow for firefighting service. Further, the Project would meet regulatory requirements for safety features that provide for public safety and that reduce the demand for firefighting responses. The impact of the Project on fire services would be less than significant without the need for mitigation. The Project would not require the addition of a new firefighting facilities, whose construction might cause significant environmental impacts.

Since Alternative 2 would include a smaller building it would generate a smaller on-site population than the Project. Its potential impact related to fire and emergency services would be less than under the Project. Like the Project, Alternative 2's impact to fire and emergency services would be less than significant.

(ii) *Police Services*

Alternative 2 would provide 300 residential units, with an estimated residential population of 729 residents, and 12,504 square feet of restaurant/retail space.

In comparison, Project operation would provide 794 residential units, with an estimated residential population of 1,929 persons; and 12,504 square feet of restaurant/retail space. The Project would also add an estimated non-residential population of approximately 52 people over the existing conditions. A number of factors would reduce the need for the construction of new police facilities to accommodate the Project's population. A number of Project Design Features would enhance safety around the Project Site, including private on-site security with approximately 30-40 on-site staff, a closed-circuit television system, and a 24-hour/seven-day security program. Also, LAPD services are supplemented through the provision of private security provided by Business Improvement Districts, and the Project will include this same kind of private on-site security service. The provision of private security reduces the demand for LAPD services, and therefore demand for added physical facilities. Moreover, as discussed in the analysis of the Project's impacts, the LAPD currently has no plans for a new police station or expansion of an existing station to serve the Project Site and vicinity. For these reasons the Project's demand for police services would not require new facilities, whose construction could result in significant impacts on the environment, to meet its added demand for services and the Project's impact on police services would be less than significant.

Due to its reduced population of 792 residents as compared to the Project, Alternative 2 would generate less of a demand for LAPD services than the Project. Alternative 2 would include Project Design Features similar to those of the Project and, like the Project, would benefit from similar private security services in the neighborhood, thereby reducing its demand for police officers who would require additional physical facilities. The impact of Alternative 2 on police services would be less than under the Project, and like the Project, would be less than significant.

(iii) Schools

Alternative 2's 300 multi-family residential units are estimated to generate approximately 50 elementary school students, 13 middle school students, and 28 high school students, for a total of 91 school students. The restaurant/retail uses (12,504 square feet) are not anticipated to generate any new students.¹³

Based on LAUSD generation factors, the Project's 794 multi-family residential units are estimated to generate approximately 131 elementary school students, 36 middle school students, and 75 high school students, for a total of 242 school students. The increase in students from the residential uses under the Project could contribute to the existing shortfall in classroom space in the area. However, pursuant to Section 65995 of the California Government Code, the Applicant would be required to pay fees in accordance with SB 50, which payment is deemed to constitute full mitigation of a project's

¹³ This estimate was calculated by multiplying the proportionate reduction in the number of residential units by the number of students generated by the Project for each of the three school types. While commercial uses can create a secondary effect on student enrollment, the amount of commercial development with the Project and the Alternative is not sufficient to generate more than a student in total.

development impacts. As discussed in the analysis of the Project's impact on schools, according to LAUSD, no new school construction in the area is planned, and future students could be accommodated, if necessary, through the use of such mechanisms as temporary classrooms, multi-track calendars and increased class-room size.

The reduction in students associated with Alternative 2 would not be sufficient to avoid the shortfall in classroom space. Alternative 2 would also address enrollment impacts through the payment of SB 50 fees, which would constitute full mitigation for its potential impact, and, like the Project, its new students could be accommodated through the use of such mechanisms as temporary classrooms, multi-track calendars and increased class-room size. The impact of Alternative 2 would be less than under the Project, and like the Project, would be less than significant.

(iv) Library Services

Alternative 2 would provide 300 residential units, with an estimated residential population of 729 residents at the Project Site.

In comparison, the Project would provide 794 residential units, with an estimated 1,929-person residential population at the Project Site. As concluded in the analysis of the Project's impact on libraries, the Project's residential population could be accommodated at the existing libraries serving the Project Site, without creating a need for additional library facilities, and the Project's impact would be less than significant.

With its reduction in population size as compared to the Project, Alternative 2's impact relative to library space needs would be less than under the Project, and like the Project, would be less than significant.

(v) Parks and Recreation

To meet the demand for recreational and open space created by the 729 residents that its 300 residential units would generate, Alternative 2 would be required to provide 34,775 square feet of on-site open space and recreation facilities.¹⁴ The open space would be provided pursuant the City's LAMC, and would, similar to the Project, provide private and common open space, including a Podium terrace and recreation facilities.

In comparison, the Project's 794 residential units would generate an estimated residential population of 1,929 residents. The Project would provide 123,844 square feet of on-site open space and recreation facilities, of which 2,728 square feet would be included in a publicly accessible plaza and 100,652 square feet for Project residents that would meet the LAMC requirements for open space. The Project would provide additional open space that would not meet the LAMC definition of credited open space. This open space area, with large open to sky landscaped terraces and recreation/spa facilities may help reduce the demand for use of local parks by Project residents; and meet the LAMC open space

¹⁴ Assuming a unit mix similar to the Project. $(181 - <3 \text{ habitable rooms} \times 100 \text{ sf/unit}) + (83 - 3 \text{ habitable rooms} \times 125 \text{ sf/unit}) + (36 - >3 \text{ habitable rooms} \times 175 \text{ sf/unit}) = 34,775 \text{ sf.}$

requirements. Residual demand for off-site park space would be limited and would be distributed amongst a large array of existing park facilities. The nearest existing park to the Project, in the South Park neighborhood, Grand Hope Park, is the recipients of fees, via Development and Owner Participation Agreements, that provide a funding stream for maintenance and security of local parks, thus avoiding potential degradation of the facilities that might occur with increased demand. The Project would not cause substantial degradation of existing facilities at any single park location such that a new public park would be required. In addition, compliance with existing LAMC regulations that require the dedication of parkland, payment of in-lieu fees, and/or provision of comparable on-site recreational facilities, would reduce the Project's impact to a less than significant level.

Alternative 2 would, like the Project, provide on-site open space and recreational facilities for its residents and meet City requirements for the dedication of parkland, payment of in-lieu fees, and/or provision of comparable on-site recreational facilities. Since the on-site population of Alternative 2 would be less than that of the Project, its potential to generate residual park demand that could not be met on-site or its potential to degrade parkland or require the construction of new facilities would be less than that of the Project. The impact of Alternative 2 would also be less than significant.

(m) Transportation and Traffic

(i) Circulation System Programs, Plans, Ordinances, and Policies

(a) LOS Analysis based upon LADOT TIS Guidelines

(i) Construction

Alternative 2 would include the development of a 25-story building that would include five levels of parking, (including one level of subterranean parking) that would create traffic, require vehicles entering and leaving the Project Site, and require construction activity adjacent to existing sidewalks. The Project would incorporate TRAF-PDF-1, which requires implementation of a Construction Management Plan; and TRAF-PDF-2, which requires implementation of a Pedestrian Safety Plan. The analysis of the Project's construction impacts evaluated the impacts of transportation for workers, the transport of heavy equipment, haul and delivery truck trips, and Project Site access from the adjacent streets, as well as potential conflict with pedestrians. The analysis concludes that impact resulting from the number of construction trips (with conversion of truck trips to PCEs) would be less than significant. In addition, the construction impact analysis concludes that potential lane and sidewalk closures would be limited and accommodated safely, and that parking, access and transit services would be impacted minimally. Therefore, the Project's construction impact would be less than significant and mitigation is not required.

Alternative 2 would require construction activities similar to those required by the Project, and the maximum impact of construction on a single day of construction activity for

Alternative 2 would be similar to that for the Project. However, Alternative 2's smaller scale of development program would result in a shorter construction period, fewer construction-related trips, and a shorter time period during which minimal impact to parking, access and transit services could occur. Therefore, the construction impact of Alternative 2 would, like the Project, be less than significant, and would be less than the Project due to a reduction in the total amount of construction required.

(ii) *Operation*

Alternative 2 would include the development of 300 residential units and 12,504 square feet of restaurant/retail space that would generate traffic to and from the Project Site. Alternative 2's net increase in trips over the existing trips at the Project Site are compared to the net increase in trips associated with the Project in **Table V.6, Alternative 2, Net Trip Generation Summary**.¹⁵ Table V.6 also shows the Project's trip generation and a comparison of Alternative 2 to the Project.

**TABLE V-6
ALTERNATIVE 2 – NET TRIP GENERATION SUMMARY**

Alternative	Net Trip Generation Estimates						
	Daily	A.M. Peak Hour			P.M. Peak Hour		
		In	Out	Total	In	Out	Total
Alternative 2	1,287	26	71	97	78	35	113
Project	2,227	39	157	196	138	62	200
Alternative 2 Net Trip Increase (Decrease) Compared to Project	(940)	(13)	(86)	(99)	(60)	(27)	(87)

SOURCE: The Mobility Group, 2019.

As shown in Table V-6, Alternative 2 would generate approximately 51 percent fewer trips than the Project in the A.M. peak hour. It would generate 97 net A.M. peak hour trips as compared to the Project's 196 net trips. In the P.M. peak hour, Alternative 2 would generate approximately 44 percent fewer trips than the Project. It would generate 113 P.M. net peak hour trips as compared to the Project's 200 net trips. Access would be the same as for the Project.

The analysis of the Project's impacts concludes that when measured against future baseline conditions, the Project would have a significant impact at one intersection in the A.M. peak hour, prior to mitigation, but that the identified mitigation measures, TRAF-MM-1, which provides for a TDM program, and TRAF-MM-2, which provides improvements to the City's traffic signal control system, would fully mitigate the significant

¹⁵ The Calculation of trips for the Alternatives, was prepared by The Mobility Group, and is included in Appendix N of this Draft EIR. The calculations show the assumptions regarding

impact and there would be no remaining unmitigated impact in the A.M. peak hour. In the P.M. peak hour, the analysis concludes that when measured against the future baseline conditions the Project would have significant impacts at four intersections, prior to the mitigation, but that mitigation measures TRAF-MM-1 and TRAF-MM-2 would fully mitigate the significant impacts at all four impacted intersections and that there would be no remaining unmitigated impacts in the P.M. peak hour.

Based on the impact analysis for the Project, Alternative 2 could potentially reduce the Project's pre-mitigation significant impact from one to zero intersections in the A.M. peak hour, and no mitigation measure would be required. In the P.M. peak hour, Alternative 2 could potentially reduce the Project's pre-mitigation significant impacts from four to one intersections, and with implementation of the two mitigation measures, the remaining unmitigated impact could be reduced from one to zero intersections in the P.M. peak hour. Similar to the Project, there would be no remaining significant impacts with implementation of mitigation.

While Alternative 2 would also result in less than significant impacts after mitigation, Alternative 2 would generate fewer trips and lower pre-mitigation impacts than the Project. Therefore, impact of Alternative 2 would be less than under the Project, and the impact of both would be less than significant with mitigation.

(b) Congestion Management Program

As discussed above, Alternative 2 would generate fewer trips than the Project under daily, A.M. peak hour and P.M. peak hour conditions; as such, Alternative 2 would contribute proportionately fewer trips at the CMP monitoring locations than would the Project.

As the analysis for the Project concludes, the maximum number of trips that the Project would add to any CMP monitoring intersection would be 10 trips in both morning and afternoon peak hours; and the Project would not add more than the 50 trip threshold to any CMP monitoring intersection. The Project would add a maximum of 16 morning and 14 afternoon peak hour one-way trips to freeway segments at the SR-110 south of US-101 station. These low incremental volumes are well below the CMP threshold of 150 trips along freeway segments. The Project's impact at CMP monitoring intersections and freeway segments would be less than significant.

The highest total volume of peak hour transit trips that would be added by the Project would be 53 trips, which would represent approximately 0.14% of the total transit capacity during the peak hour. These 53 trips would be distributed over a large number of public transit services. Metro is currently experiencing system-wide bus and rail decline in ridership; and the Project would not cause the capacity of the transit system to be substantially exceeded.

The impact of Alternative 2 relative to CMP thresholds would be less than the Project's less than significant impact, because the Alternative 2 would generate fewer A.M. and P.M. peak hour trips than the Project.

(c) Plans Regarding Transit, Bicycle, and Pedestrian Facilities

Alternative 2 would include the development of a mixed-use project with 300 residential units and 12,504 square feet of restaurant/retail space. As such, Alternative 2 would bring a new residential population to the Project Site that would use the variety of the transit and non-motorized modes of travel that are available in the Project Site vicinity. The Project Site is served by a wide variety of transit options, ranging from heavy rail, rapid bus, local bus, and express bus services, as well as access to bicycle and pedestrian facilities. Alternative 2 would include provisions for bicycle facilities per requirements of the LAMC.

As discussed in the analysis of the Project's construction impacts, with the incorporation of Project Design Features TRAF-PDF-1 and TRAF-PDF-2 into the Project, which provide a Construction Management Plan and a Pedestrian Safety Plan, the integrity and safety of pedestrian access to and continued use of adjacent alternative transportation facilities during construction would be maintained. As such, Project construction would be consistent with policies and plans for public transit, bicycle and pedestrian facilities, and the Project's construction impact regarding alternative travel mode plans would be less than significant.

During Project operations, the Project would provide pedestrian amenities such as landscaping, setbacks, shade, benches and pedestrian-scale lighting along the Olive Street and 11th Street edges of the Project Site, and pedestrian-scale retail commercial uses along street frontages. A pedestrian plaza would be provided at the corner of Olive Street and 11th Street to enhance pedestrian circulation. The frontages of the Project Site would meet the design and landscaping requirements included in the Downtown Design Guide and the MyFig Project. The Project would include TRAF-MM-1, which requires implementation of a transportation demand management program that includes provisions for: bicycle facilities; information regarding the availability of, and encouraging the use of, public transit; and the payment of funds to support off-site improvements regarding bicycle services and first/last mile transit accessibility. The Project would also support State, regional and local plans and programs whose primary focus is to increase density in proximity to public transit options, including rail and bus services, as well as bike lanes and a high quality pedestrian network, thereby promoting and supporting the use of alternative modes of transportation. With these features, Project operation would be consistent with policies and plans for public transit, bicycle and pedestrian facilities, and the Project's operation impact regarding alternative travel mode plans would be less than significant.

Like the Project, Alternative 2 would incorporate Project Design Features TRAF-PDF-1 and TRAF-PDF-2, which provide a Construction Management Plan and a Pedestrian Safety Plan. These features would ensure that the integrity and safety of pedestrian access to and continued use of adjacent alternative transportation facilities during construction would be maintained. With these features, construction of Alternative 2 would be consistent with policies and plans for public transit, bicycle and pedestrian

facilities, and like the Project, the impact would be less than significant. During operation, Alternative 2 would link to the various local transportation facilities in a manner similar to that of the Project. With a smaller population, there would be less demand for the use of nearby transit facilities. Alternative 2 would also require traffic mitigation and would incorporate a transportation demand program. However, the amount of reduction in trips required for the Alternative's transportation demand program would be lower than those set for the Project. Alternative 2, like the Project, would be consistent with, and would not conflict with policies that support alternative transportation. The impact of Alternative 2 would be less than significant and similar to that of the Project.

*(ii) VMT Analysis pursuant to State CEQA Guidelines
Section 15064.3*

Alternative 2 would include the development of 300 residential units and 12,504 square feet of restaurant/retail space that would exceed the VMT analysis screening threshold of 250 daily trips, and would therefore require a VMT analysis using the City's VMT Calculator. Accordingly, a VMT analysis for Alternative 2 has been performed and is included in Appendix N-6, EIR Alternatives – VMT Analyses, of this Draft EIR. As described therein, the Household VMT per Capita for Alternative 2 would be 4.2 compared to the threshold of 6.0, and would therefore be less than significant. Also, the Work VMT per Capita of Alternative 2 would be less than significant, as its retail component contains small-scale, local-serving retail land uses with less than 50,000 square feet.

The analysis of the Project's VMT impacts also reflects a Household VMT per Capita of 4.2, and also includes a retail component that is small-scale, local serving and less than 50,000 square feet in size. While Alternative 2 would generate fewer vehicle miles during a day than the Project, the per capita generation rate would be similar to that of the Project. Therefore, the per capita impacts of Alternative 2 and the Project regarding the VMT analysis are similar and less than significant.

(iii) Design Feature Hazards

Alternative 2 would, like the Project, include ground level restaurant/retail uses and three driveways to access the structural parking, including one new driveway on Olive Street.

Access for both the Project and Alternative 2 would be provided in a manner that is safe and that would not create hazardous conditions. Project Site access for both scenarios would be provided by one driveway on Olive Street and two driveways in the alley that connects 11th Street and Olympic Boulevard between Olive Street and Grand Avenue. The Olive Street driveway would have two lanes to accommodate inbound and outbound residential and commercial traffic, for the Project or Alternative 2. It would be designed to LADOT standards with adequate visibility, would provide for pedestrian safety, and would provide sufficient capacity to prevent queuing in the City's right-of-way. The impact of both the Project and of Alternative 2 regarding design hazards would be less than significant and would be similar.

(iv) *Emergency Access*

Alternative 2 would involve construction activities, including excavation and haul and material truck activity, and operations activities, including both on-site activity and traffic, associated with 300 residential units and 12,504 square feet of restaurant/retail space.

Under both the Project and Alternative 2, construction activities would include fences that encroach into the public right-of-way (e.g., sidewalk, bicycle lanes and roadways) adjacent to the Project Site during off-site or streetscape improvements. Both the Project and Alternative 2 would implement a Construction Management Plan (TRAF-PDF-1), including a Worksite Traffic Control Plan, that would ensure that traffic flow and access would be maintained throughout the course of construction activities.

Operation of the Project and of Alternative 2 would generate traffic in the Project Site vicinity and increase traffic within the area. However, emergency access to the Project Site and surrounding area would continue to be provided on adjacent streets similar to existing conditions. There are no roadways bordering the Project Site that are designated as an emergency or disaster route by the City. Both the Project and Alternative 2 would provide direct vehicular access to the Project Site via three access driveways, two of which would be accessed off of the alley that connects Olive Street and 11th Street. The impact of the Project and Alternative 2 regarding emergency access would be less than significant. However, because Alternative 2 would generate less traffic than the Project and place fewer cars on the road during a potential emergency situation, the impact of Alternative 2 would be less than under the Project.

(n) *Tribal Cultural Resources*

Like the Project, the development of Alternative 2 would require excavation into existing soils that could potentially encounter known or previously unknown Tribal cultural resources.

Tribal consultation regarding the Project has occurred pursuant to AB 52 as part of this EIR. No substantial evidence was provided to support a claim that known sacred lands or Tribal cultural resources overlap with or occur within the Project Site; or that any known sacred lands or Tribal cultural resources would be affected by the Project. The Project would be subject to compliance with City's standard conditions of approval for the treatment of inadvertent tribal cultural resource discoveries. Further, the Project's evaluation of cultural resources identifies a potentially high sensitivity for buried archaeological resources that, once encountered, could potentially be considered a tribal cultural resource. Mitigation measure CULT-MM-2 provides for unanticipated discovery of such archaeological resources. Therefore, should tribal cultural resources be encountered during construction activities, mitigation in accordance with PRC Section 21084.3 would be implemented in order to address these resources.

As Alternative 2 would require a similar construction program involving excavation into the subsurface that could potentially disturb previously unknown Tribal cultural resources,

it would also be subject to the City's standard conditions of approval and implementation of mitigation measures identical to those identified for the Project. The impact under Alternative 2 could be reduced due to a shallower level of excavation; however, like the Project, the impact would be less than significant.

(o) *Utilities*

(i) *Wastewater*

(a) *Construction*

Construction of the Project and Alternative 2 would require workers that would generate a small amount of wastewater. Such wastewater generation would be temporary and would not contribute wastewater flows to the local wastewater collection system. Portable restrooms would be provided and serviced by a private company, in accordance with the NPDES General Construction Permit. The resultant waste would be disposed of off-site by a licensed waste hauler, and in accordance with applicable regulations, it is expected that the wastewater generated during Project construction would be treated within the Hyperion Sanitary Sewer System. Therefore, relocation or construction of new or expanded wastewater treatment facilities would not be required.

Alternative 2 would require a shorter construction schedule with fewer workers than the Project and would therefore generate less wastewater than the Project. As is the case with the Project, the impact on wastewater due to construction would be less than significant.

(b) *Operations*

Alternative 2 would provide 249,618 square feet of development in contrast to the Project's 751,777 square feet of development, which represents a reduction of approximately 67 percent. Alternative 2 would include 12,504 square feet of restaurant/retail uses and 300 residential units. The amount of wastewater that would be generated from these uses is shown in **Table V-7, Alternative 2 – Estimated Wastewater Generation**. As indicated, operation of Alternative 2 would generate a total amount of wastewater of 52,730 gpd.¹⁶

¹⁶ This estimate of wastewater generated does not net-out the wastewater generation from the existing uses on the Project Site for the Project or the Alternative. The analysis of wastewater in Section IV.O.1, *Wastewater*, of this Draft EIR uses the gross value as the total amount of wastewater is more pertinent to evaluating impacts on local infrastructure. The use of the gross value for evaluating impacts on treatment capacity, which is only affected by the net increase, provides a conservative analysis. Further, the analysis is conservative as it does not take into account water conservation features.

TABLE V-7
ALTERNATIVE 2 - ESTIMATED WASTEWATER GENERATION

Type of Use ^c	Quantity	Generation Factor (gpd/unit) ^a	Wastewater Generation (gpd) ^a
Alternative 2 ^c			
Residential-Studio	42 units	75	3,150
Residential-1 bdr	139 units	110	15,290
Residential-2 bdr	83 units	150	12,450
Residential-3 bdr	36 units	190	6,840
Retail/Restaurant ^b	12,504 sf/500 seats	30/seat	15,000
Alternative 2 Total			52,730
Project Total Wastewater			129,004
Alternative 2 (Decreased) Wastewater Generation as Compared to Project			(76,274)
Abbreviations: gpd – gallons per day, sf = square feet, ksf = 1,000 square feet			
^a The average daily flow based on the Bureau of Sanitation sewage generation factors.			
^b The analysis of wastewater for the Project is based on the conservative assumption that all of the retail space would be occupied by full service restaurant uses. For consistency, a similar assumption is used for Alternative 2. It is assumed that a restaurant seat would occupy 25 sf.			
^c The unit mix is assumed to be similar to that of the Project.			
SOURCE: ESA, 2018.			

In comparison, the Project would generate 129,004 gpd of wastewater, which is 76,274 gpd more than Alternative 2. The existing infrastructure that serves the Project Site is sufficient for conveying, treating and disposing the Project's wastewater generation; therefore, the Project's impact regarding wastewater generation under the Project would be less than significant, without the need for mitigation.

Alternative 2 would generate 59 percent less wastewater than the Project and therefore would have less of an impact regarding conveyance and treatment of wastewater than the Project's less than significant impact. Therefore, Alternative 2's impact with respect to wastewater generation and treatment capacity, would also be less than significant.

(ii) *Water Supply*

(a) *Construction*

The Project and Alternative 2 would create a temporary demand for water for construction workers and construction activities such as soil compaction and earthwork, dust control, mixing and placement of concrete, and equipment and site cleanup. These activities would occur incrementally throughout the construction period.

Water for construction activities may be trucked in by private purveyors, but it could also be provided by tapping into the existing water lines that are already serving the Project Site, or a combination of both. The water demand for construction would be less than the demand for the longer term Project operations for which water supply and infrastructure is available. Therefore, relocation or construction of new or expanded water facilities, would not be required for construction activity.

Alternative 2 would require a shorter construction schedule with fewer workers than the Project and would therefore generate less demand for water consumption than the Project. As is the case with the Project, the impact on water services due to construction would be less than significant.

(b) Operations

Alternative 2 would provide 249,618 square feet of development in contrast to the Project's 751,777 square feet of development, representing a reduction of approximately 67 percent. Alternative 2 would include 12,504 square feet of restaurant/retail uses and 300 residential units. The amount of water (water demand) that would be required to meet the needs of Alternative 2 is shown in **Table V-8, Alternative 2 – Estimated Net Water Demand**. Alternative 2 would generate demand for 41,783 gpd of water over existing levels.

In comparison, the Project would generate an increase in water demand of 108,070 gpd, after the implementation of mandatory and voluntary water conservation measures, which is approximately 66,087 gpd more than the water demand for Alternative 2. There are sufficient water supplies available to meet the Project's demand for water and sufficient infrastructure to deliver the water to the Project Site. Therefore, the Project's impact related to water demand is less than significant.

Alternative 2 would create a demand for water that is approximately 61 percent less than that of the Project's water demand. Therefore, Alternative 2 would have also have a less than significant impact with respect to water demand.

**TABLE V-8
ALTERNATIVE 2 – ESTIMATED NET WATER DEMAND**

Type of Use	Quantity	Generation Factor (gpd) ^a	Water Demand (gpd) ^a
Alternative 2 ^f			
Residential-Studio	42 units	75	3,150
Residential-1 bdr	139 units	110	15,290
Residential-2 bdr	83 units	150	12,450
Residential-3 bdr	36 units	190	6,840
Retail/Restaurant ^b	12,504 sf/500 seats	30/seat	15,000

Other/Misc. ^c	17,693 ^c
Subtotal	70,423 gpd
Less Existing ^d	291
Reduction for Conservation (40%) ^e	28,169
Alternative 2 Net Total	41,983
Project Water Demand	108,070
Alternative 2 (Decreased) Water Demand Compared to Project	(66,087)

Abbreviations: gpd – gallons per day, sf = square feet, ksf = 1,000 square feet

^a The average daily demand based on the Bureau of Sanitation sewage generation factors.

^b The analysis of water supply for the Project is based on the conservative assumption that all of the retail space would be occupied by full service restaurant uses. For consistency, a similar assumption is used for Alternative 2. It is assumed that a restaurant seat would occupy 25 sf.

^c The calculation of the Project's water demand is based on an initial estimated amount of 180,118 gpd according to the sewer generation factors that serve as a baseline estimate prior conservation credits. The 180,118 gpd is comprised of 111,827 gpd for residential uses, 15,000 gpd for retail/restaurant uses and 53,291 gpd for the remaining ancillary uses including such uses as building amenities (e.g., spa, gym, community room), landscaping and cooling tower. To account for the Alternative's non-residential/non-retail uses, which are ancillary to the primary uses, it has been assumed that the Alternative's consumption with 249,618 square feet of development would be proportional to that of the Project with 751,777 square feet, or 0.332 percent. To this end, 0.332 percent 53,291 gpd = 17,693 gpd.

^d The existing water consumption at the Project Site was calculated and incorporated into the estimate of water demand in the Project's WSA.

^e This total is after water conservation required by ordinance and additional project conservation measures; and reduction credit for water consumption by existing uses on the Project Site. The WSA calculation for Project gives a credit of approximately 40 percent. The same credit is assumed for the Alternative, even though Alternative 2 would not pursue ELDP certification.

^f The unit mix is assumed to be similar to that of the Project.

SOURCE: ESA, 2019.

(3) Relationship of Alternative 2 to Project Objectives

Alternative 2 would provide the same uses as the Project in a somewhat similar building profile. However, the amount of development provided by Alternative 2 would be substantially reduced, which would prevent Alternative 2 from achieving the same level of effectiveness as the Project in meeting the Project's objectives.

Alternative 2 would meet the following objectives:

- It would provide street-level commercial uses, and pedestrian enhancement with linkages to nearby commercial and entertainment venues. (Objective 3)

Alternative 2 would only partially meet the following objectives:

- It would provide high-density, high-rise housing in South Park with accessibility to alternative transportation modes in a High Quality Transit Area/Transit Priority Area;

although the density and number of housing units would be greatly reduced; and the Alternative would not maximize the utilization of the Project Site through implementation of TFAR provisions. (Objective 1).

- It would provide new development with a building design and construction that would promote resource conservation, including waste reduction, efficient water management techniques, and conservation of energy; however, it would not necessarily include the same level of sustainability features as would the Project, which is a LEED Gold certification program. (Objective 5)
- It would provide infill housing in an employment rich mixed-use area, improving the jobs/housing ratio of the Downtown area in accordance with state, regional and local laws and policies supporting the reduction of VMTs, air quality emissions, and greenhouse gas emissions, but because not as much housing is proposed, not to the same level as the Project due to the reduced density of the alternative (Objective 2).
- It would not provide an architecturally significant and distinctive high rise building in the South Park neighborhood as the Project, as the tower would be 45 stories shorter in height. It would not establish itself as a major contributor to the Downtown skyline and would not include the same distinctive cut-outs and unique tower characteristics as would the Project. (Objective 4)
- It would provide an economically viable development that provides short- and long-term employment opportunities, tax revenue for the City, and a substantial investment in Los Angeles, but not to the same level as would the Project, as the number of residential units would be greatly reduced, resulting in a smaller scale of investment (Objective 6).

c) Alternative 3. Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1 (No TFAR).

(1) Description of the Alternative

Alternative 3 would provide a residential and restaurant/retail development, as would the Project; however, the amount of development, the target of the housing market, and the building design would vary. A summary of the development program for Alternative 3 is shown in **Table V-9**.

Alternative 3 would provide increased commercial uses at the ground level, with 25,000 square feet of retail/restaurant uses in comparison to the Project's 12,504 square feet. The commercial space would occupy the full frontage along Olive Street and 11th Street, with a plaza at the corner, and allowance for small elevator lobbies providing access to the residential uses above. Alternative 3 would also include 315 Senior Housing units. These residential units would be included in a 12-story building with nine residential stories above the ground-level commercial and two parking levels. Three more parking

levels would be provided in an underground structure. Vehicular access would be from two driveways located along the alley.

The nine residential levels, i.e., the levels above the parking and commercial levels, would be organized around a central corridor of approximately 40 feet in width along a north-south axis within the Project Site. Residential units located along the alley and centrally located within the Project Site would be accessed from the interior corridor. Units facing Olive Street would be accessed from an aisle corridor along Olive Street. Alternative 3 would have a FAR of 6:1 in comparison to the Project's 13:1, which represents an approximately 67 percent reduction in the amount of floor area.

TABLE V-9
ALTERNATIVE 3 – REDUCED DENSITY – INCREASED COMMERCIAL USE WITH SENIOR HOUSING
- FAR OF 6:1 (No TFAR)

Use	Project	Alternative 3
Project Site Area for Calculation of FAR		
Existing Site (pre-dedication)	41,603	41,603
Gross Buildable Area* (to street centerline per Transit Area Mixed Use Criterion)	57,829 sf	41,603
Number of Floors		
Total Above Ground	70 (9 podium/61 Tower)	12
Subterranean Parking Levels	6	3
Building Height	810 feet	145 feet
Development Program		
Residential Development		
Units	794 units	315 units
Floor Area	739,273 sf	224,618 sf
Commercial Development – floor area	12,504 sf	25,000 sf
Floor Area for Calculation of FAR^a	751,777 sf	249,618 sf
Floor Area Ratio (FAR)	13:1	6:1
Parking Spaces	891	340
*Note: GBA for a Mixed Use Transit Area Project utilizing a Transfer of Floor Area is to centerline of Olive Street, 11 th Street and the alley, per Art. 14.5 of LAMC. For a project that is not a Mixed Use Transit Area Project utilizing Transfer of Floor Area, the GBA is the same as the pre-dedicated lot area.		

Alternative 3 would not include the purchase of development rights from a donor site pursuant to the provisions of LAMC Section 14.5.6, approval of a TFAR for a Transit Area Mixed-Use Project, and the Project Site area for purposes of calculating FAR would not extend to the adjacent street centerline per Transit Area Mixed Use criterion. Further, Alternative 3 would not provide Public Benefits pursuant to LAMC Section 14.5.9 since there would be no TFAR. The Project would provide a Public Benefit payment or directly provide public benefits that would include such public benefits as affordable housing,

public open space, historic preservation, recreational, cultural, community and public facilities, job training, affordable child care, streetscape improvements, public art programs, homeless services programs, or public transportation improvements. Unlike the Project, Alternative 3 would not be an ELDP project. The much smaller size and nature of Alternative 3 would not produce as extensive an investment and high quality jobs in California and it is unlikely that Alternative 3 would qualify under all of the criteria and requirements under Public Resources Code Sec. 21183 to be certified as an ELDP project.

(2) Environmental Impacts

(a) *Aesthetics*

SB 743 (PRC Section 21099(d)) provides that aesthetic impacts of residential and mixed-use residential projects on an infill site within a TPA shall not be considered significant impacts on the environment, pursuant to CEQA. The City's ZI File No. 2452 provides further instruction concerning the definition of transit priority projects and the analysis of aesthetics impacts that are consistent with PRC Section 21099(d). As the Project meets these qualifications, the Project would not result in significant aesthetic impacts. The same is also true for Alternative 3. However, Section IV.A, *Aesthetics*, of this Draft EIR does include for informational purposes only an analysis of the Project's aesthetics impacts based upon thresholds taken from the checklist items in Appendix G to the State CEQA Guidelines; i.e., reflecting the aesthetic impacts that would occur from the Project if PRC Section 21099(d) was not in effect. The following discussion compares the aesthetics impacts of Alternative 3 to those disclosed in the Project's informational analyses relative to scenic vistas, scenic resources, regulations regarding scenic quality, and light and glare.

(i) *Scenic Vistas*

The Project is located in Downtown Los Angeles, which provides an urban skyline that is considered a component of a scenic vista for passers-by and viewers from locations throughout the Los Angeles basin and surrounding hillside areas. The only public vantage points in the Project Site vicinity are adjacent street corridors and elevated freeways. The Project Site is currently developed and no scenic vistas are currently available from public streets adjacent to the Project Site.

Under Alternative 3, the Project Site would be developed with a single mid-rise building, which would include residential development above one floor of ground level restaurant/retail uses and two levels of parking. There would be a public plaza at the corner of 11th Street and Olive Street. The building would be 12-stories tall; 145 feet in height; and would occupy the full building area of the Project Site.

In comparison, the Project would replace the existing buildings with an architecturally distinctive high-rise 70-story tower (nine podium levels and a 61 story tower) rising to 810

feet in height. The Project's height and design (e.g. cut-out highlights) would contribute to the taller development skyline in the South Park neighborhood and Downtown.

As viewed from public vantage points such as freeways, and more distant hillside areas, the Project would not block views of scenic vistas. Rather, the Project would form a component of the City's high-rise skyline and would add additional depth, articulation and interest to the skyline as viewed from the freeway approaches to the Downtown. Because the Project would form a component of high-rise views and would not block all horizon views of the Downtown's high-rises from public locations, it would not have substantial adverse effects on a scenic vista.

Alternative 3, due to its lower building height, and absence of distinctive architectural tower features, would provide a less distinctive contribution to the South Park and Downtown skylines. Like the Project, Alternative 3 would not have a substantial adverse impact on a scenic vista.

The Project would have no impact on scenic vistas pursuant to SB 743 and ZI File No. 2452. Likewise, Alternative 3 also would not have an impact on such views; and would have a similar effect on views of scenic resources from public locations as would the Project.

(ii) Scenic Resources

Neither the Project Site nor the general vicinity of the Project Site contains scenic natural resources, such as stands of native trees or rock outcroppings or unique natural landforms, and neither is located along a designated City- or State-designated scenic highway or associated view corridor. The nearby scenic resources in the Downtown area include such features as public plazas, art or gardens; and notable design elements along the streets, e.g., historical buildings. Given the heavily built nature of the Downtown area, these scenic resources are located within the development grid and would not be adversely affected by development within the Project Site.

Given the same visual conditions surrounding the Project Site, and Alternative 3's reduced building profile, the impact of Alternative 3 on scenic resources would be similar to that of the Project. Pursuant to SB 743 and ZI File No. 2452, Alternative 3 and the Project would have no impact on scenic resources.

(iii) Scenic Quality Regulations

Plans and regulations that pertain to the scenic quality of the Downtown vicinity, include the General Plan Framework, the Community Plan (Chapter V, Urban Design inclusive of and the Downtown Design Guide as implemented through the LAMC). The scenic quality of the Project vicinity is shaped by the aesthetic character and massing of its buildings, and its pedestrian character interspersed with a number of urban features that contribute to scenic quality, e.g., including public plazas, art or gardens, consistent design elements along streets, pedestrian amenities, and landscaped medians or park areas.

The Project would contribute to the high-rise character of the Downtown, provide a landscaped plaza, sidewalk improvements, and landscaping that would enhance the activity and visual character of the Project Site and its surroundings. It would include such design features as deep setbacks, reduced effects of contrast with neighboring properties, and provide space around the taller building elements. The Project's ground level facades would be organized around the pedestrian Plaza with articulation, decorative landscaping and art displays, and a mix of paneling and glass to provide varied textures while allowing highly visible interiors consistent with the ground level restaurant/retail uses, and an activated pedestrian milieu. The Project would also include AES-PDF-2 to ensure that the Project's architectural motifs would be integrated into the parking structure frontages facing the Alley and adjacent streets. As such, the Project would be consistent with and would not conflict with the implementation of the policies and design standards within the regulatory documents.

Under Alternative 3, the Project Site would be developed with a single mid-rise building, which would include residential uses above one floor of ground level restaurant/retail uses and two levels of parking. There would be a public plaza at the corner of 11th Street and Olive Street. The building would be 12-stories tall; 145 feet in height; and would occupy the full buildable area of the Project Site. Building articulation would be provided through architectural detailing consistent with the Downtown Design Guide, but no terraces or cut-outs beyond that of the plaza would be included. Alternative 3's building edge along the alley would not provide the Project's 80-foot distance between the Project tower and the Ten50 Grand building across the alley and the approximately 59-foot tower setback from 11th Street. At the same time Alternative 3 would support similar improvements to those of the Project regarding the character of the pedestrian environment.

Notwithstanding the variation in building design, Alternative 3 would be consistent with the Downtown Design Guide and therefore its impact would be considered similar to that of the Project. Pursuant to SB 743 and ZI File No. 2452, the Project and Alternative 3 would have no impact regarding consistency/conflicts with regulations to protect the scenic quality of Downtown.

(iv) Light and Glare

Under Alternative 3, the Project Site would be illuminated during the nighttime hours by new uses, as its 12-story building with 249,618 square feet of development would contain new residential and restaurant/retail uses.

As was discussed in the analysis of the Project, the Project's similar uses in a 70-story (61 tower stories over a nine-story podium) building with 751,777 square feet would include new sources of light from internal uses, exterior lighting and automobiles accessing the Project Site and the podium parking garage. Glass used in exterior façades would be made of low reflective materials in order to minimize daytime glare; and the aesthetic screening required under AES-PDF-2 requires shielding of automobile lights emanating from the Project's parking structure. Project lighting, including architectural lighting, light emanating from the building interiors, lighting of the proposed residential

amenities on the Podium deck, security lights, and illuminated signage, would not create a new source of light or glare that would substantially alter the character of off-site areas or that would result in substantial light spillage/or glare onto adjacent light-sensitive receptors. The Project would not exceed the L.A. CEQA Thresholds Guide standard regarding new sources of substantial light and glare.

Lighting associated with Alternative 3 at the ground floor might be increased slightly as compared to the Project due to its larger commercial frontage along the adjacent streets. Otherwise, lighting associated with Alternative 3 would be less than that of the Project due to its decreased amount of building mass with reduced lighting needs. Therefore, Alternative 3's light and glare impact would be less than that of the Project and pursuant to SB 743 and ZI File No. 2452 would result in no impact regarding light and glare.

(b) Air Quality

(i) Consistency with Air Quality Management Plan and General Plan

Under Alternative 3, the Project Site would be developed with a 12-story building, including 315 residential units and 25,000 square feet of commercial development in 249,618 square feet of floor area, with three levels of subterranean parking. Air pollutant emissions would be generated due to construction activities and operations associated with the developed uses.

In comparison, the Project would provide a 70-story building containing 794 residential units and 12,504 square feet of restaurant/retail uses in a building with 751,777 square feet of development, and six levels of subterranean parking, and would also generate air pollutant emissions due to construction and operations. Although the Project would generate net new air pollutant emissions, it would not cause the Air Basin's criteria pollutant emissions to worsen so as to impede the objectives of the AQMP. The Project would be consistent with the AQMP as a result of its incorporation of appropriate control strategies for emissions reduction during construction. The Project would also incorporate AQ-PDF-1, which includes green building features and AQ-PDF-2, which includes restrictions on the types and characteristics of equipment that would be used during construction. Further, the Project would be consistent with the applicable growth projections and control strategies used in the development of the AQMP and would not jeopardize attainment of the air quality levels identified in the Plan. During operation, the Project would also incorporate control strategies set forth in the AQMP such as location efficiency, increased density, transit accessibility, improved development design, and other measures. The Project would also be consistent with the City's growth projections and policies of its General Plan Air Quality Element for achieving emission reduction goals. As such, Project impact with respect to consistency with the AQMP and General Plan air quality policies would be less than significant.

Similar to the Project, Alternative 3 would be consistent with the AQMP growth forecasts, would not conflict with its achievement of applicable air quality standards and would not

jeopardize attainment of air quality levels identified in the AQMP. Alternative 3 would include Project Design Features similar to those of the Project to reduce the Project impact on air quality emissions. As such, Alternative 3 would also have a less than significant impact with respect to AQMP and General Plan consistency. As compared to the Project, Alternative 3 would generate lower air pollutant emissions due to less extensive construction activities and reductions in operational sources such as energy consumption and automobile traffic exhaust and therefore would have less of an impact than the Project's less than significant impact.

(ii) *Cumulative Increase of Criteria Pollutants*

(a) Construction

Alternative 3 would involve the construction of a 12-story building with 249,618 square feet of development.

As was discussed in the analysis of the Project, the Project's similar uses in a 70-story, 751,777 square-foot building with three levels of subterranean parking, would generate emissions through the use of heavy-duty construction equipment, construction traffic, fugitive dust emissions, paving operations, and the application of architectural coatings. Construction-related daily emissions would not exceed the SCAQMD numeric indicators of significance with the exception of short-term and temporary NO_x emissions during the one-day continuous concrete pour phase. The NO_x emissions result primarily from on-site construction equipment, and on-road hauling and concrete truck emissions generated during truck travel and idling during the one-day continuous concrete pour phase. Mitigation Measure AQ-MM-1 would require limits on the equipment used and logistics followed for implementation of the one-day concrete pour. With the mitigation measure, construction-related net maximum daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would not exceed the SCAQMD numeric indicators of significance. Therefore, the Project's impact with respect to the violation of an air quality standard would be less than significant.

The analysis of the impact on air quality due to construction is based on the maximum amount of construction that would occur on a day of maximum construction. Alternative 3 would involve less construction overall than would the Project, resulting in a shorter construction schedule and the generation of lower air pollutant emissions. Aside from the single day in which the Project's concrete pour would occur, the maximum construction that could occur on a single day of activity would be similar to that for the Project, and Alternative 3 would also be required to implement the same Project Design Features as the Project. The building foundation for Alternative 3 could result in reduced emissions during the concrete pour, in which case the Project's concrete pour mitigation measure, would be modified or not required. As with the Project, the construction impact would be less than significant.

(b) Operation

Alternative 3 would generate operational regional emissions due to the use of on-site products, energy consumption and mobile activities associated with the development of its 12-story building with 315 residential units and 25,000 square feet of commercial uses.

The Project would generate regional air quality emissions due to the use of on-site products, energy consumption and mobile activities associated with the development of its 70-story building with 791 residential units and 12,504 square feet of restaurant/retail uses. As shown by the analysis performed of the Project's operational impact, the net new air pollutant emissions generated by the Project's operation would be below the regional numeric indicators, and the Project's regional emissions would be less than significant without the need for mitigation.

Alternative 3's impact with respect to net new operational air pollutant emissions would be less than the Project's less than significant impact, because a smaller building would be operating on the Project Site, and there would be lower emissions associated with energy consumption and traffic exhausts. Because Alternative 3's increase in net new operational emissions would be less than Project's, the Alternative 3 impact related to air quality standards would be less than under the Project.

(iii) *Exposure of Sensitive Receptors to Pollutant Concentrations*

(a) Construction

Alternative 3 would involve 249,618 square feet of development that would generate net new air pollutant emissions in proximity to sensitive uses.

As was discussed in the analysis of the Project, the Project's similar uses in a 751,777 square-foot building would also generate net new emissions during its construction phases. However, based on the Project's phasing and equipment schedule, compliance with SCAQMD Rule 403 and Rule 1113, implementation of AQ-MM-1 and AQ-PDF-2, the Project's maximum localized construction emissions for sensitive receptors would not exceed the localized screening indicators for the identified criteria pollutants at the adjacent sensitive receptors. Further, TAC emissions including diesel particulate matter would also be less than significant as regards health risk to sensitive receptors.

Construction of Alternative 3 would involve less development than would the Project and would therefore generate lower emissions. Alternative 3 would be required to implement the same Project Design Features as the Project and would also be required to comply with applicable regulations, which would reduce its emissions.

As Alternative 3's construction activities would generate fewer emissions than the Project, it would have less impact than the Project's less than significant impact relative to criteria pollutant concentrations, and its impact would also be less than significant.

(b) Operation

The Project's maximum localized operational emissions for sensitive receptors would not exceed the localized screening indicators for the identified criteria pollutants, without the implementation of any mitigation measures. Furthermore, the Project impact related to operations would be required to comply with CARB and SCAQMD regulations to reduce the emission of TACs from the proposed on-site diesel-fueled emergency generator to a less than significant level. The impact related to the formation of CO hotspots would also be less than significant without the need for mitigation measures.

As Alternative 3 would develop a smaller building than the Project, with similar uses. Alternative 3 would generate lower operational emissions than the Project, and its impact would be less than the Project's impact. Both Alternative 3 and the Project would have a less than significant impact.

(iv) *Other Emissions Affecting a Substantial Number of People*

Alternative 3 and the Project would provide mixed-use development, including residential and commercial uses, that might generate other emissions such as odors. The analysis of the Project's impacts notes that the impacts of emissions other than odor that might occur with the Project are addressed under the above air quality analyses. The Project would not include notable odor producing uses (e.g., industrial uses). Odors associated with the Alternative 3 and Project uses might emanate from waste generation and disposal (e.g., trash cans, dumpsters) and occasional minor odors generated during food preparation activities. Such odors are typical, could be controlled and would be localized in the immediate Project vicinity, avoiding exposure to a substantial number of people.

As such, Alternative 3 and the Project would have a similar potential for generating other emissions and the number of people that would be subject to exposure. The impact of Alternative 3 and the Project regarding other emissions would be less than significant.

(c) *Cultural Resources*(i) *Historical Resources (Architectural/Built Environment)*

Both the Project and Alternative 3 would demolish the five existing buildings on the Project Site, would add a new building larger in massing than the existing uses on the Project Site, and would require excavation into soils within or adjacent to the Project Site. However, none of the five existing buildings qualifies as an historical resource under State CEQA Guidelines Section 15064.5(a)(1) or (2), and none warrants consideration under State CEQA Guidelines Section 15064.5(a)(3). However, a historic water conveyance system (*Zanja* No. 8) is depicted on maps adjacent and to the west of the Project Site, potentially within the mid-block alley. For the purposes of the Project, the City is treating the *Zanja* No. 8 as an historical resource under State CEQA Guidelines Section 15064.5(a)(3).

Construction of the Project could potentially disturb subsurface resources related to the *Zanja* No. 8 or other remnants of past activities at the Project Site during demolition or excavation. Mitigation measures CULT-MM-1 through CULT-MM-5 include provisions for monitoring of excavation activities for the occurrence of resources, treatment of resources should they occur, reporting of finds should they occur, as well as additional treatment and reporting requirements to address the specific characteristics of the *Zanja* No. 8. These mitigation measures would reduce a potentially significant impact to historical resources or unique archaeological resources, as well as the *Zanja* No. 8 conveyance system, to a less than significant level. Further, mitigation measure NOISE-MM-4 that would mitigate vibration impacts to residents across the alley would also reduce a potential vibration impact to remnants of the *Zanja* No. 8 should it be present within the alley to a less than significant level.

As the analysis of Project's impacts concludes, because the existing buildings are not historical resources, the Project would not have a direct impact on historical resources. Further, the Project would not have an indirect impact on historical resources. None of the historical buildings in the vicinity of the Project Site is located immediately adjacent to the Project Site, and none would be physically affected by development of the Project. The Project's location, design, scale and massing would not obstruct historically or architecturally significant primary views to and from an adjacent resource that contributes to its eligibility as a historical resource, or be incompatible in scale, massing, materials or design with an adjacent historical resource such that its eligibility is substantially impaired.

Since it would also be developed at the Project Site, Alternative 3 would have a similar construction impact to that of the Project, and would require the same mitigation measures, CULT-MM-1 through CULT-MM-5, to address a potential significant impact to historical resources or unique archaeological resources, including the *Zanja* No. 8, should one occur; thus reducing a potential impact to a less than significant level. Despite its smaller building massing, Alternative 3 would have a similar direct and indirect impact on historical resources in the Project Site vicinity. The impact of Alternative 3 on historical resources would be similar to that of the Project, and both would also be less than significant.

(ii) *Archaeological Resources*

Alternative 3 would involve excavation for three subterranean parking levels and foundation structures, as compared to the Project, which would involve excavation for six levels of subterranean parking and foundation structures.

While no known archaeological resources are located on the Project Site, the Project Site is considered to have sensitivity for the occurrence of subsurface archaeological resources, including both prehistoric archaeological resources, as well as historic-period resources related to previous residential use of the Project Site. In addition, *Zanja* No. 8 is depicted on maps as adjacent and to the west of the Project Site, potentially within the mid-block alley. For the purpose of this Project, the City is treating the *Zanja* No. 8 as an

historical resource under State CEQA Guidelines Section 15064.5(a)(3), and as a unique archaeological resource.

Archaeological resources are more likely to occur in the upper excavated soils and, as such, a potential impact could occur under either the Project or Alternative 3. Both the Project and Alternative 3 would implement mitigation measures CULT-MM-1 through CULT-MM-5, and NOISE-MM-4, which would reduce a potentially significant impact to archaeological resources to a less than significant level.

However, because construction of Alternative 3 would not require the same extent of excavation activity as would the Project, the potential impact on archaeological resources under Alternative 3 would be less than under the Project.

(iii) Human Remains

Alternative 3 would involve excavation for three subterranean parking levels and foundation structures, as compared to the Project, which would involve excavation for six levels of subterranean parking and foundation structures reaching a depth of approximately 64 feet.

No human remains were identified during the pedestrian survey of the Project Site and no known human remains have been recorded within the Project Site or within a 0.50-mile radius. The Project Site has been previously disturbed by the original construction of the existing buildings; and if present human remains would have likely been detected previously. However, although unlikely, Project grading and excavation into deeper previously undisturbed subsurface areas may encounter buried human remains. If such remains were to be encountered they would be protected under applicable regulations. California PRC Section 5097.98, requires notification of the County Coroner in the event of the unanticipated discovery of human remains and a prescribed protocol for their disposition in accordance with applicable regulations, notification of the NAHC and subsequent tribal coordination if remains are determined to be of Native American descent.

With the implementation of applicable regulatory measures, both the Project and Alternative 3 would result in less than significant impact levels. Because human remains are more likely to occur in soil levels nearer to the surface, and these soils would be disturbed under both the Project and Alternative 3, the potential impact to human remains would be similar under both the Project and Alternative 3.

(d) Energy

(i) Efficient Energy Consumption

Alternative 3 would include 25,000 square feet of restaurant/retail uses and 315 residential units in 249,618 square feet of development, in comparison to the Project's 12,504 square feet of restaurant/retail uses and 794 residential uses in 751,777 square feet of development. Both Alternative 3 and the Project would consume energy resources.

As the analysis of the Project's impacts concludes, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy requirements would not substantially affect local and regional supplies or capacity. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements such as the Title 24 standards and CALGreen Code. Consistent with the requirements for ELDPs, the Project would result in energy consumption reductions as it is a mixed-use development located on an urban infill site that would achieve LEED Gold certification; and incorporating design features that would reduce energy consumption.

Alternative 3 would not necessarily include the Project's LEED Gold level standards, however would be expected to include highly efficient energy saving features per current practices, including the same energy efficiencies associated with access to alternative modes of transportation. With its reduction in size of approximately 67 percent as compared to the Project, Alternative 3 would generate a lower level of energy demand than would the Project, but like the Project, its impact would be less than significant.

(ii) Conflict with Plans for Renewable Energy or Energy Efficiency

The Project would comply with existing energy standards; would include a project design and building operations that incorporate energy-conservation measures beyond those otherwise required and would not conflict with adopted energy conservation plans.

The Project would be designed to meet the USGBC LEED Gold Certification including energy performance optimization features such as reducing building energy demand by a minimum of 5 percent for new construction compared to the 2016 Title 24 Building Energy Efficiency Standards. Among other features it would installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent, incorporate heat island reduction strategies such as high-reflectance and vegetated roofs for the Project roof areas, provide water efficient fixtures and landscaping to reduce indoor water usage, and an HVAC system that would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain.

While Alternative 3 might not meet the same energy efficiency standards as the Project, it would be expected to include highly efficient energy saving features per current practices and current building energy efficiency code standards, and include the same automobile fuel efficiencies associated with access to alternative modes of transportation as the Project. As such, Alternative 3 would also be in compliance with plans for renewable energy and energy efficiency. As with the Project, the impact of Alternative 3 would be less than significant.

(iii) Relocation or Expansion of Energy Infrastructure

Alternative 3 would include 25,000 square feet of restaurant/retail uses and 315 residential units in 249,618 square feet of development, in comparison to the Project's

12,504 square feet of restaurant/retail uses and 794 residential uses in 751,777 square feet of development. Both Alternative 3 and the Project would utilize energy infrastructure to accommodate their respective demand for energy resources.

With its larger development, the Project's electricity and natural gas demand is expected to represent a small fraction of LADWP's and SoCalGas' energy supplies; and the service provider's existing infrastructure, and planned electricity and natural gas supplies would be sufficient to meet the Project's demand for electricity and natural gas. The Project would not result in an increase in demand for electricity or natural gas services that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

With a reduction in size of approximately 67 percent, Alternative 3 would generate a lower level of energy consumption than would the Project and would therefore place less demand on available supplies and distribution infrastructure capabilities than would the Project. As is the case with the Project, the impact would be less than significant.

(e) *Geology and Soils*

(i) *Adverse effects associated with surface fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides.*

As the analyses for the Project show, the Project Site is not bisected by an active or potentially active fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, and the proposed structures for both Alternative 3 and for the Project would derive support from the underlying bedrock, such that fault rupture and liquefaction would not be potential hazards. However, because the Project Site is located within the seismically active Southern California Region, any new structures associated with either Alternative 3 or the Project would be subject to strong seismic ground shaking. Like the Project, Alternative 3 would be designed to comply with CBC and Los Angeles Building Code requirements, including the preparation of a Final Geotechnical Report with final design recommendations. The Final Geotechnical Report for both the Project and Alternative 3 would be prepared by a California-registered geotechnical engineer and submitted to the LADBS for review prior to issuance of a grading permit.

Through compliance with existing City Building Code regulations, the impact related to adverse effects associated with surface fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides under both the Project and under Alternative 3 would be less than significant. Since existing seismic conditions would be the same under both the Project and Alternative 3, the impact with respect to existing geological and seismic hazard conditions that might cause adverse effects would be similar.

(ii) *Soil Erosion or Loss of Topsoil*

Alternative 3 would require redevelopment of the Project Site, including excavation for three levels of subterranean parking. Construction associated with both the Project and Alternative 3 would increase the potential exposure of soils to the elements and increase the risk of soil erosion at the Project Site. Since there is no native topsoil left at the Project Site, neither the Project nor Alternative 3 would result in a loss of topsoil.

However, compliance with existing SCAQMD, RWQCB, and Building Code regulations for dust and erosion control under both the Project and Alternative 3 would ensure that neither the Project nor Alternative 3 would result in substantial erosion. However, Alternative 3 would require excavation for only three levels of subterranean parking and building foundation structures, as compared to excavation for six levels of subterranean parking and foundation structures under the Project, which could reduce potential exposure of uncovered soils to erosional forces of wind and rain.

Compliance with existing regulations would ensure that soil erosion would be avoided or minimized to a less than significant level under both Alternative 3 and the Project. Nevertheless, because construction of Alternative 3 would require less excavation activity and potential exposure of soils, the impact related to soil erosion or loss of topsoil would be less than under the Project.

(iii) *Unstable Geologic Units*

Alternative 3 would require excavation for three levels of subterranean parking and building foundation structures, as compared to excavation for six levels of subterranean parking and foundation structures under the Project. The Project Site is not subject to unstable geologic units, such as liquefaction or unstable soils.

Although unstable geologic units are not present, all required excavations for both the Project and for Alternative 3 would be sloped and properly shored in accordance with the applicable provisions of the CBC incorporated into the City's Building Code. These regulatory measures would minimize the potential for site hazards from unstable geologic conditions during excavation activities. Both the Project and Alternative 3 would comply with existing regulations and the recommendations of an approved Final Geotechnical Report.

Compliance with existing regulations and recommendations of the Final Geotechnical Report would ensure that the impact regarding unstable geologic units would be less than significant for both the Project and Alternative 3. Although the impact associated with both the Project and Alternative 3 would be less than significant, because Alternative 3 would entail less excavation, its impact would be incrementally less than that of the Project.

(iv) *Expansive Soils*

The Project Site is not currently underlain by soils with the potential for expansion or corrosion. In any case, verification of soil conditions and appropriate final design

recommendations would be included in the Final Geotechnical Report for both Alternative 3 and the Project. The Final Geotechnical Report would require approval by LADBS prior to issuance of a grading permit. Implementation of the recommendations included in the Final Geotechnical Report would ensure that any impact associated with expansive or other soils conditions would be less than significant for both the Project and Alternative 3.

Since the Project Site is not underlain by expansive soils and because both the Project and Alternative 3 would comply with the recommendations included in the Final Geotechnical Report, there would be no impact related to expansive soils under both the Project and Alternative 3. The impact with respect to expansive soils would be similar under both Alternative 3 and the Project.

(v) *Support for Septic Tanks or Alternative Waste Water Disposal where Sewers are not Available*

The Project Site is located in a developed area of the City, which is served by a wastewater collection, conveyance, and treatment system operated by the City. Furthermore, no septic tanks or alternative disposal systems are necessary for the Project, nor are they proposed under this Alternative. Therefore, similar to the Project, no impact would occur.

(vi) *Paleontological Resources*

Alternative 3 would involve excavation for three subterranean parking levels and foundation structures, as compared to the Project, which would involve excavation for six levels of subterranean parking and foundation structures reaching a depth of approximately 64 feet.

The Project Site is developed and contains no unique geologic features. The Project Site's subgrade older alluvium is determined to have a high sensitivity for fossils, and excavation at depths of greater than 15 feet have the potential to intercept paleontological resources. As a result, construction of either the Project or Alternative 3 could directly or indirectly destroy a unique paleontological resource. Both the Project and Alternative 3 would implement mitigation measures GEOL-MM-1, GEOL-MM-2, GEOL-MM-3 and GEOL-MM-4, which would include provisions for monitoring of excavation activities for the occurrence of resources, treatment of resources should they occur, and reporting of finds should they occur.

Implementation of these mitigation measures would reduce the potential impact on paleontological resources to less than significant levels under both the Project and Alternative 3. However, because construction of Alternative 3 would not require the same depth of excavation as under the Project, the potential impact on paleontological resources would be less under Alternative 3.

(f) *Greenhouse Gas Emissions*

Alternative 3 would include the development of a 12-story building; and three levels of subterranean parking. The developed uses, like the Project, would result in GHG emissions due to construction and operational activities. The Project would include 751,777 square feet of development with similar uses and six levels of subterranean parking that would also generate net GHG emissions due to construction and operational activities.

As calculated for the Project, approximately 751,777 square feet of floor area would generate approximately 8,654 MTCO₂e net increase in operational emissions (inclusive of amortized construction emissions), assuming the implementation of PDFs. Alternative 3 would provide approximately 249,618 square feet in floor area (a floor area decrease of approximately 67 percent) and, thus, would result in proportionally less occupancy and lower operational and construction emissions. Both the Project and Alternative 3 would implement AQ-PDF-1, which requires the incorporation of green building features in excess of those required under standard regulations. These would enhance building energy efficiency and promote non-motorized alternatives to conventional fuel automobiles that would reduce GHG emissions from automobile emissions. Both the Project and Alternative 3 would also implement project design feature WS-PDF-1 to reduce water consumption that would incrementally reduce indirect GHGs associated with energy consumption occurring during water extraction, conveyance and treatment. Both the Project and Alternative 3 would be consistent with, and would not conflict with, applicable strategies outlined in CARB's 2017 Climate Change Scoping Plan, SCAG's 2016-2040 RTP/SCS, Green New Deal (Sustainable City pLAn 2019), and Green Building Code. These plans include guidelines for reducing GHG emissions and also encourage development patterns that support and encourage the use of alternative modes of transportation, thus reducing vehicle miles traveled.

As an ELDP, the Project is committed to off-set its generation of emissions, so as to result in a net-zero increase in GHG emissions. Alternative 3 would not pursue certification as an ELDP project given its reduced size and likely inability to commit to meeting the ELDP requirements. Notwithstanding, Alternative 3 would generate proportionately fewer GHG emissions and, as such, the impact related to GHG would be less under Alternative 3 than under the Project, although Alternative 3 would not include purchase of offsetting carbon reduction credits to achieve a GHG net-zero condition, unlike the Project.

(g) *Hazards and Hazardous Materials*

(i) *Routine Transport, Use, or Disposal of Hazardous Materials*

Alternative 3 would include the development of a 12-story building and three levels of subterranean parking. Both the Project and Alternative 3 would require the use of products for construction and operation that are routinely used in performing everyday household and commercial activities consistent with regulations. However, neither the

Project nor Alternative 3 would require the use of hazardous materials beyond these routinely used products, and neither would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Alternative 3 would entail approximately 67 percent less overall floor area as compared to the Project; therefore, the development of Alternative 3 would reduce the transport, use, storage and disposal of the common construction and household products during operations. The impact would be less than significant under both the Project and Alternative 3.

(ii) Upset and Accident Conditions

Both the Project and Alternative 3 include demolition and construction activities that could potentially expose workers to airborne contaminants, low concentrations of VOCs, and potential existing soils contaminants and gases, as well as ACMs and LBPs in the existing buildings.

Both the Project and Alternative 3 would be subject to regulations regarding the identification, and where applicable, procedures for the collection, transport and disposal of ACMs and LBPs. Both the Project and Alternative 3 would also implement mitigation measure HAZ-MM-1, which requires preparation of a SMP to ensure that all areas of the Project Site have been properly evaluated and provide added guidance to contractors for appropriate screening, and management of potentially impacted or impacted soils that may be encountered during grading and excavation activities. To avoid the risk associated with removal of potential USTs and related infrastructure, both the Project and Alternative 3 would implement mitigation measure HAZ-MM-2, which requires that earthwork activities in the vicinity of potential USTs be preceded by potholing prior to construction to verify the potential occurrence and characteristics of the Project Site conditions. With compliance with existing regulations and implementation of mitigation measures HAZ-MM-1 and HAZ-MM-2, neither the Project or Alternative 3 would pose a hazardous threat to people or the environment due to potential accidental releases of hazardous materials during construction.

As such, the impact related to upset and accident conditions would be reduced to less than significant levels under both the Project and Alternative 3. Also, because both the Project and Alternative 3 would involve the same scope of demolition, and because potential soils contaminants, gases and USTs would occur in the shallower soils levels that would be affected by both the Project and Alternative 3, the impact related to risk of upset and hazards under both the Project and Alternative 3 would be similar.

(iii) Use of Hazardous Materials within One-quarter Mile of an Existing School

The Project Site is located approximately 0.17 miles from the LAUSD Los Angelitos Early Education Center and the LA Child Care and Development Council School, respectively. Excavation and demolition associated with both the Project and Alternative 3 could

potentially cause hazardous materials to be released (see subsection g(ii), above) at the Project Site that would require transport to off-site locations. If not properly handled during transport from the Project Site such materials could potentially pose a threat to the nearby schools. Both Alternative 3 and the Project would therefore implement mitigation measures HAZ-MM-1 and HAZ-MM-2, which would reduce a potential impact to less than significant levels under both the Project and Alternative 3. As discussed under subsection g(ii), above, the risk of upset and hazards would be similar under both the Project and Alternative 3. Therefore, the less than significant with mitigation impact associated with the use of hazardous materials within one-quarter mile of a school would be similar under both the Project and Alternative 3.

(iv) Hazardous Materials Database Listings

Both the Project and Alternative 3 would involve excavation and demolition activities within the Project Site. As described in the analysis of the Project's impacts, the Project Site is listed on one hazardous materials site list. Even so, the database indicates that no violations were listed for the use or disposal of hazardous materials and that the materials had been disposed of previously. In the event construction were to encounter hazardous materials in the soil, both the Project and Alternative 3 would implement mitigation measure HAZ-MM-1 and HAZ-MM-2, which would reduce hazardous materials impacts to less than significant levels.

No hazardous materials would be utilized in day to day operations of either the Project or Alternative 3 other than the typical household, commercial, vehicle, pool and spa, and landscaping maintenance materials. These materials are not listed on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and therefore neither the Project nor Alternative 3 would cause the Project Site to be included on such a list. Therefore, the impact related to hazardous materials database listing would be similar for both the Project and Alternative 3, and would be less than significant with mitigation.

(v) Proximity to an Airport or Private Airstrip

The two nearest airports to the Project Site are the Hawthorne Municipal Airport and Los Angeles International Airport, located approximately 9 miles and 10 miles to the southwest, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project Site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. Both the Project and Alternative 3 would result in no impact regarding airport-related safety hazards for people residing or working in the Project vicinity.

(vi) Emergency Response/Evacuation Plans

Both the Project and Alternative 3 would develop the Project Site, adding net new population and additional activity to the Project Site area. Neither the Project nor Alternative 3 would include land uses that would constitute potential hazards to the

community (such as an airport, oil refinery, or chemicals plant), or require the closure of any existing streets; therefore, neither would represent a significant impediment to emergency response and evacuation of the local area. Land uses under either the Project or Alternative 3 would not require a new, or interfere with an existing, risk management, emergency response, or evacuation plan. The impact related to emergency response plans under both the Project and Alternative 3 would be less than significant.

Alternative 3 would reduce the scale of construction activities as compared to the Project and result in less of a population increase and less vehicular traffic than under the Project. Alternative 3 would result in less traffic on, and demand on, evacuation routes, than under the Project. As such, the impact related to emergency response and evacuation plans would be less under Alternative 3 than under the Project.

(vii) *Wildland Fire Hazards*

The Project Site is located in a highly urbanized area. No wildlands are present on the Project Site or in the surrounding area. Furthermore, the Project Site is not located within a City-designated wildfire hazard area, nor is it located within a State Responsibility Area or an area designated as a Very High Fire Hazard Severity Zone. Therefore, the Project and Alternative 3 would have no impact regarding the exposure of people or structures to direct or indirect risk involving wildland fires.

(h) *Hydrology and Water Quality*

(i) *Consistency with Water Quality Standards and Groundwater Quality*

(a) *Construction*

Both the Project and Alternative 3 would involve construction activities, including earth moving, maintenance/operation of construction equipment, potential dewatering, and handling/storage/disposal of materials, that could contribute to pollutant loading in stormwater runoff from the construction site. Also, wind could convey exposed and stockpiled soils at the construction site into nearby storm drains during storm events, and on-site water activities for dust suppression purposes could contribute to pollutant loading in runoff from the construction site. However, these potential impacts would be reduced to less than significant levels under both the Project and Alternative 3 through compliance with regulatory requirements and implementation of BMPs, and compliance with Building Code grading procedures, which would ensure that neither the Project nor Alternative 3 would cause exceedances of water quality standards.

As such, the impact with respect to construction-phase water quality standards would be less than significant under both the Project and Alternative 3. However, because the scale of excavation and therefore the potential exposure of excavated soils to the elements would be less under Alternative 3, its potential impact with respect to water quality standards during construction would be less than under the Project.

(b) Operation

Both the Project and Alternative 3 would incorporate a drainage collection and conveyance system that would detain and treat/filter runoff in compliance with the City's LID Manual requirements to reduce the quantity of, and improve the quality of, rainfall runoff leaving the Project Site. With the implementation of such system, both the Project and Alternative 3 would result in an improvement in the water quality of stormwater runoff from the Project Site, compared to current conditions. The impact related to water quality standards would be similar and less than significant under both the Project and Alternative 3.

(ii) *Changes in Groundwater Supplies or Recharge*

Neither the Project nor Alternative 3 would involve groundwater withdrawal. The excavation for the foundations and the subterranean garage for both the Project and Alternative 3 would have the potential to intercept perched groundwater and, as such, some groundwater removal may be required during construction. However, as the analysis of the Project's potential impacts shows, even with the Project's deeper excavation, any removed groundwater would not be part of the underlying water table and would not affect groundwater supplies. In addition, both Alternative 3 and the Project would incorporate an on-site drainage system with required LID Ordinance BMPs. This system may include a drywell system that would provide infiltration to the groundwater system and, as such, contribute a beneficial recharge during operation. Neither the Project nor Alternative 3 would cause depletion of groundwater supplies or interfere with groundwater recharge, and both the Project and Alternative 3 may potentially increase groundwater recharge. The impact regarding groundwater recharge or depletion under both Alternative 3 and the Project would be less than significant.

However, because Alternative 3 would require shallower excavation for subterranean structures, its potential to encounter perched groundwater would be less than under the Project. Therefore, the potential impact with respect to groundwater supplies would be less under Alternative 3 than under the Project.

(iii) *Alteration of Drainage Pattern Resulting in Erosion, Siltation, or Flooding*

(a) Construction

Both the Project and Alternative 3 would include construction activities that could contribute to erosion or siltation if soils are exposed during development of the Project Site. Construction activities for the Project would include excavation of approximately 80,520 cy of soil, all of which would be exported off-site, for the development of six subterranean parking levels and foundation structures. In contrast, Alternative 3 would require excavation for three subterranean parking levels and building foundations. All excavation activities under both the Project and Alternative 3 would have the potential to temporarily alter existing drainage patterns and flows within the Project Site by exposing the underlying soils and causing the Project Site to be temporarily more permeable. As a

result, there would be little or no runoff into the adjacent municipal storm drain system and temporary drainage controls would be required to prevent ponding and uncontrolled runoff of loose soil materials and construction wastes. Since the Project Site and surroundings are entirely urbanized, there are no nearby unlined or natural drainage courses that could be affected by site runoff during construction. Both the Project and Alternative 3 would be required to implement BMPs and erosion control measures, including compliance with the City's Development Best Management Practices Handbook, Part A, to prevent uncontrolled runoff and pollution. With implementation of BMPs and compliance with City regulations, the impact with respect to changes in drainage patterns during construction would not result in erosion, siltation, or flooding under both the Project and Alternative 3, and would be less than significant.

However, because excavation volumes would be substantially less under Alternative 3 than under the Project, its potential impact associated with alteration of a drainage pattern as a result of siltation during construction would be less than under the Project.

(b) Operation

Both the Project and Alternative 3 would result in post-construction surface drainage that would flow into the adjacent municipal storm drain system after on-site detention and filtration. Both the Project and Alternative 3 would be constructed on an already developed site, within the existing urban street grid network and, as such, neither the Project nor Alternative 3 would substantially alter the existing drainage pattern of the Project Site, the area, or receiving waters. Both the Project and Alternative 3 would collect rainwater within landscaping areas and through the collection of water within in hardscape areas via gutters. Under either the Project or Alternative 3, collected water would be conveyed through an on-site drainage system that would reduce existing runoff, with control of soils within the landscaped areas. Both the Project and Alternative 3 are estimated to decrease the existing runoff from an estimated 2.73 cfs to an estimated 2.70 cfs, owing to the retention afforded by the proposed LID system, a reduction in surface runoff as compared to existing surface runoff from the Project Site.

Therefore, development of the Project or Alternative 3 would not alter the drainage pattern in the post-project condition. Erosion, siltation or flooding impact associated with alteration of a drainage pattern during operation would be less than significant, and similar, under both the Project and Alternative 3.

(iv) *Alteration of Drainage Pattern Resulting in Exceedance of Stormwater Drainage System Capacity or Impedance of Flood Flows*

(a) Construction

Both the Project and Alternative 3 would cause a temporary increase in permeable surfaces during construction that would reduce, rather than increase, off-site runoff from the Project Site during a portion of the construction. In accordance with BMPs to be implemented during construction to manage runoff flows and avoid on- or off-site flooding,

neither the Project nor Alternative 3 would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems.

As such, the impact regarding stormwater drainage system capacity under both the Project and Alternative 3 during construction would be less than significant. Although the duration of construction activities would be less under Alternative 3 than under the Project, the maximum off-site flow would be similar and its impact with respect to stormwater drainage system capacity would be similar to the Project's.

(b) Operation

Both the Project and Alternative 3 would maintain existing drainage patterns at the Project Site. No new off-site storm drainage infrastructure would be required. The existing drainage systems are sufficient to accommodate the runoff from a 50-year storm event. The Q_{50} peak flow rate of stormwater runoff from the Project Site under either the Project or Alternative 3 would be expected to decrease slightly from the existing estimated 2.73 cfs to an estimated 2.70 cfs, owing to the retention afforded by the proposed LID system, which would be designed similarly for the Project or Alternative 3. Therefore, the volume of stormwater runoff from the Project Site requiring conveyance by the existing off-site storm drain system would decrease to the same extent under both the Project and Alternative 3.

As such, the impact related to the capacity of the off-site stormwater drainage system would be less than significant, and similar, under both the Project and Alternative 3.

(v) *Pollutant Release in Flood Hazard, Tsunami, or Seiche Zones*

According to ZIMAS, the Project Site does not lie within a flood zone; and the California Department of Water Resources indicates that the Project Site does not lie within a 100-year floodplain. The Project Site is located in an area of relatively flat topography and urban development, with no hillsides or enclosed bodies of water nearby, and as such, there is no potential for inundation resulting from a seiche or mudflows.

Therefore, development of the Project and Alternative 3 would not be subject to the release of pollutants due to such related events. The impact of the Project and Alternative 3 would be similar and less than significant.

(vi) *Implementation of Water Quality Control Plans*

The Project falls within the jurisdiction of water quality plan regulations that assure that development projects are in compliance with clean water policies. These plans and regulations include the LARWQB (Region 4) Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties; and the NPDES stormwater permitting program. Also, the City is included within the Water Replenishment District of Southern California, which pursuant to the requirements of the SGMA, has submitted an analysis that demonstrates compliance with applicable portions of the California Water Code and consistency with

the SGMA's objectives by promoting sustainable management of the groundwater in the Central Subbasin.

The Project would incorporate into its design an on-site drainage system that would meet regulatory requirements of the applicable plans for the protection of water resources. The on-site drainage system would collect rainfall from the rooftop and terrace areas, treat/filter the water flow and convey it to the groundwater and/or local storm drain system. This on-site drainage system would provide BMPs in accord with the City's LID requirements. The Project would have a less than significant impact on both surface and groundwater quality and groundwater supplies and recharge. Project implementation would reduce the amount of storm-water from the Project Site and improve its quality, in compliance with the applicable plans and regulations.

Alternative 3 would be subject to the same LID requirements and implementation of BMPs as the Project. Therefore, impact of the Project and Alternative 3 would be similar and less than significant.

(i) *Land Use and Planning*

(i) *Division of an Established Community*

The Project Site is located within the boundaries of the Community Plan Area, in a highly urbanized area of Downtown, and is located within the existing street grid that interconnects the Downtown Area. Existing development on the Project Site includes five commercial buildings and associated surface parking.

Alternative 3 and the Project would both redevelop the already developed Project Site in conformance with the existing General Plan land use designation and zoning and would be similar to other large mixed-use development projects recently constructed in the area. Neither Alternative 3, nor the Project, would close or re-route existing streets; and both would comprise an infill development within the existing grid pattern.

Alternative 3 and the Project would have a similar impact regarding the division of an existing community and their impact would be less than significant.

(ii) *Consistency or Conflict with a Land Use Plan, Policy or Regulation*

Both the Project and Alternative 3 would demolish the existing buildings and develop the Project Site with residential and restaurant/retail uses. Alternative 3 would include 249,618 square feet of development in comparison to the Project's 751,777 square feet of development, which represents a reduction of approximately 67 percent as compared to the Project. Alternative 3 would include 25,000 square feet of ground level restaurant/retail uses in comparison to the Project's 12,504 square feet of ground level restaurant/retail uses, and both the Project and Alternative 3 would include a public plaza. Alternative 3 would include 315 senior-only residential units within 12 stories (nine residential stories above the ground level commercial and two parking levels) in

comparison to the Project's 794 residential units in 70 stories (nine podium levels and a 61-story tower).

As described in the analysis of the Project's impacts, the Project's mix of uses would be consistent with the existing zoning for the Project Site. The Project would not conflict with plans, policies and regulations developed by SCAG or the City for reducing impacts on the physical environment. Generally, the applicable plans, policies and regulations are intended to establish the Downtown area as a "Downtown Center," an area of increased density within a City-identified TPA and a SCAG-identified HQTAs. The intent is to create population density at key locations in the City to support regional public transportation systems, reduce VMT, provide efficiency in the provision of infrastructure, and accommodate City growth in a manner that reduces impacts on the City's existing low-density neighborhoods. Another purpose of the plans is also to create a vibrant Downtown with complementary uses and an attractive physical design that supports pedestrian activity.

The provision of the residential development in South Park by both the Project and Alternative 3 would support non-vehicular and walkable access to the nearby restaurants and shopping, the Financial District, entertainment uses such as LA LIVE and the Staples Center, nearby transit, services, commercial uses, services and parks, thus reducing the use of private vehicles for activities, creating symbiotic relationships that contribute to the vibrancy of Community Plan Area and providing increased density to support the use of public transportation. The street level restaurant/retail uses with adjacent street improvements provided by both the Project and Alternative 3 would contribute to the active pedestrian milieu that is being created in the Downtown area.

Although the Project's new development would implement TFAR provisions as they are intended to accommodate increased population density in a manner consistent with the vision for the South Park neighborhood, Alternative 3 would be developed according to the FAR provided under the existing zoning designation. Alternative 3 would provide a similar mix of uses as the Project and result in similar land use relationships in the Project Site vicinity, albeit with more commercial activity and less residential density. While the reduced density of Alternative 3 would not achieve the same density in TPAs/HQTAs as the Project would, its development would, like the Project, be consistent with, and not conflict with, the applicable plans and regulations.

Since the Project provides the greater residential intensity in a TPA/HQTA, the Project brings greater regional benefits related to higher levels of reduced trips than does Alternative 3 that SCAG's 2016-2040 RTP/SCS seeks to achieve. Nevertheless, VMT for Alternative 3 would be lower than the Project's VMT. At the same time, the Project would result in a greater increase in air pollutants and GHG emissions. Nevertheless, as both the Project and Alternative 3 would be consistent with, and would not conflict with, land use plans policies and regulations, their impact regarding land use would be less than significant. The impact with respect to adopted plans that are intended to reduce environmental effects would be similar under both the Project and Alternative 3.

(j) *Noise*

(i) *Temporary or Permanent Increase in Noise Levels in Excess of Established Standards*

(a) *Construction*

The Project would involve the development of a 70-story building and six levels of subterranean parking, which would generate noise associated with construction activities related to excavation and building development. As described in the analysis of the Project's impacts, the Project would involve construction activities, e.g., operation of heavy equipment, that would exceed applicable noise impact thresholds at adjacent residential uses (noise sensitive receptor locations R1 and R2). The Project would implement mitigation measures NOISE-MM-1 and MM-NOISE-2, requiring the use of noise barriers to reduce construction noise levels by at least 10 dBA, and mitigation measure MM-NOISE-3, requiring that construction equipment be equipped with noise mufflers that must achieve reductions in noise levels of at least 8 dBA. While these mitigation measures would reduce the Project's construction noise impact, they would not reduce the Project's construction noise levels below the applicable noise standards at all locations. Therefore, the construction noise impact under the Project would remain significant and unavoidable.

Like the Project, construction of Alternative 3's 12-story building and three levels of subterranean parking would generate noise due to construction activities associated with excavation and building development. Because Alternative 3 would reduce the overall scale of development, the duration of its construction activities would be shorter than under the Project. Even so, Alternative 3 would require the use of construction equipment similar to that of the Project, and its construction activities would occur at the same distances from nearby noise sensitive uses. Therefore, the noise level on a maximum day of construction activity under Alternative 3 would be similar to that of the Project. Alternative 3 would implement the same mitigation measures as the Project; however, as is the case with the Project, the noise impact of Alternative 3 would be significant and unavoidable, even after mitigation. Since the duration of construction activity would be shorter under Alternative 3, the impact related to construction noise would be less under Alternative 3 than under the Project.

(b) *Operation*

Alternative 3 would include the development of 25,000 square feet of restaurant/retail uses and 315 residential units, in comparison to the Project's development of 12,504 square feet of restaurant/retail uses and 794 residential uses. The activities associated with the uses during operation of both the Project and of Alternative 3 would generate noise.

As described in the analysis of Project impacts, the Project's composite noise associated with human activity at on-site open spaces, the building's fixed mechanical equipment, above-grade parking, loading and garbage collection, emergency generators, and on-

and off-site traffic would increase the exterior ambient noise level by approximately 1.4 dBA at the closest residences in the area (sensitive receptor location R1). This increase would be less than the City's ambient noise threshold of 5 dBA for composite noise. As such, the Project's operational noise impact would be less than significant.

Due to its reduction in residential units as compared to the Project, Alternative 3 would result in less on- and off-site traffic and lower occupancy of the Project Site than under the Project. As such, its impact associated with operational noise would also be less than significant. However, because its composite noise level would be lower than the Project's, Alternative 3 would result in less of an operational noise impact than would the Project.

(ii) *Groundborne Vibration and Noise*

(a) Construction

Both the Project and Alternative 3 would involve excavation and building construction activities that would have the potential to generate low levels of groundborne noise and vibration due to the operation of heavy equipment, which would generate vibrations that propagate through the ground and diminish in intensity with distance from the source. As the analysis of the Project's potential impacts concludes, these vibrations could reach levels that would exceed thresholds. Both the Project and Alternative 3 would therefore implement mitigation measure NOISE-MM-3 and NOISE-MM-4, which would restrict the distances in which heavy construction equipment could operate in proximity to sensitive receptor locations R1 and R2; and also limit the vibration characteristics of the heavy equipment. The reduction in potential vibration levels would also limit the extent of groundborne vibration that could occur within the alley adjacent to the Project Site, and therefore the vibration reaching remnants of the *Zanja* No.8, should such remnants be present beneath the alley.

Implementation of these mitigation measures would reduce construction vibration impact to a less than significant level under both the Project and Alternative 3 at both the residential locations and potential remnants of the *Zanja* No. 8. However, because the scale and duration of construction would be reduced under Alternative 3 as compared to the Project, the impact of groundborne vibration and noise would be lower under Alternative 3 than under the Project.

(b) Operation

Both the Project and Alternative 3 would include typical stationary equipment, such as air handling units, condenser units and exhaust fans, that have the potential to generate low levels of vibration and groundborne noise.

Under the Project, with its greater amount of building space and levels of site activity, vibration would be substantially below the 0.5 PPV, the threshold for structural damage at the nearest vibration-sensitive residential buildings; and it would be under the threshold of 72 VdB that would result in human annoyance. Operational vibration levels under the Project would not be anticipated to result in damage to the *Zanja* No. 8. Delivery trucks

and vans that would use the alley and loading dock areas of the Project would be similar to the types of delivery trucks and vans that already currently use the alley under existing conditions for the existing multi-family uses (e.g., at 1001 S. Olive Street). Groundborne noise levels would be less than the groundborne vibration levels and would also be less than significant. As such, operation of the Project would not result in exposure of persons to or generation of groundborne vibration and noise that would exceed threshold criteria.

Alternative 3 would substantially reduce the size of the development on the Project Site as compared to the Project; however, the operation vibration impact associated with structural damage and human annoyance under both the Project and Alternative 3 would be less than significant. Alternative 3 would have similar types of stationary equipment and delivery trucks using the alley and loading dock areas as the Project; therefore, the impact of operational groundborne vibration and noise would be similar between Alternative 3 and the Project.

(iii) Exposure of People to Excessive Noise Levels Near Airports

The two nearest airports to the Project Site are the Hawthorne Municipal Airport and Los Angeles International Airport, located approximately 9 miles and 10 miles to the southwest, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project Site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. As such, there would be no exposure of Project Site population to noise associated with such facilities. Both the Project and Alternative 3 would result in no impact regarding airport/air-facility noise and the impact for the two uses would be similar.

(k) Population and Housing Growth

For the general purpose of analyzing population-related impacts, the City uses a citywide average multi-family household size of 2.43. Based on this household size, Alternative 3's 315 residential units would generate approximately 765 residents. However, because Alternative 3's residential units are senior units, its household size per unit would likely be smaller. Even so, in the discussions below, the residential estimate of 765 residents is used for consistency and constitutes a conservative analysis. Alternative 3 would also include an estimated net increase of approximately 68 employees at the Project Site (after subtracting the employees at the Site's existing uses).¹⁷

¹⁷ As calculated in Section IV.K, *Population and Housing*, of this Draft EIR, the Project would include a net increase of approximately 49 new employees. This accounts for 34 employees in the ground floor restaurant/retail uses, approximately 50 residential support employees, and 35 existing employees that would be netted out of the increase. The estimate of 50 residential support employees is based on an estimate of the number of employees it would take to operate the building. Alternative 3, would include approximately 68 employees for the 25,000 square feet of restaurant/retail uses, which is an increase of 33 employees over the existing number of employees. While Alternative 3 includes only 315 residential uses in contrast to the Project's 791 residential units, the reduction in staffing for the smaller

In comparison, as discussed above, the Project's 794 residential units would generate approximately 1,929 residents, using the same household size factor. The Project's increase would be well within SCAG's projected population growth for the City and would represent approximately 1.3 percent of SCAG's estimated growth in City population between 2017 to 2023, and 0.3 percent of SCAG's estimated population increase for the City between 2017 and 2040. Similarly, as discussed above, the Project's 794 new dwelling units would be well within SCAG's projected housing growth projections, and would represent approximately 1.0 percent of the growth in the City between 2017 and 2023, and approximately 0.3 percent of the growth between 2017 and 2040. The Project's employment increase of 49 employees would represent approximately 0.04 percent of the employment growth in the City between 2017 and 2023, and approximately 0.01 percent of the growth between 2017 and 2040. As such, Project-related population and housing growth in the City would be within SCAG's projections. Thus, this growth is planned and would not represent induced or unplanned growth beyond that otherwise occurring.

The Project would not require the displacement of housing units or residential population. The Project would increase the number of Project Site employees by approximately 49 new workers. The small number of employees would be consistent with the number of new employees expected for the City in the SCAG projections. By providing a large number of new housing units but a small increase in employment, the Project would help bring the jobs/housing ratio in the Downtown Area closer to the regional job/housing ratio, indicating that the Project would be consistent with SCAG policies supporting development that provides work locations and residential locations in proximity to one another to reduce VMT. The impact of the Project regarding population and housing growth being consistent with demographic projections and the placement of housing within the region would be less than significant.

The number of residential units and population growth (not accounting for the reduction due to the focused senior population) under Alternative 3 would be approximately 60 percent less than under the Project and, as such, would also not exceed SCAG population and housing growth projections. The location of the new, higher density housing in the Downtown area under either the Project or Alternative 3 would be consistent with SCAG and City policies supporting increased residential density of Downtown in order to support greater use of public transit, and fewer VMT. However, because the Project would provide more housing, with a relatively similar number of employees, Alternative 3 would not contribute to an improvement in the balance of jobs/housing ratio within the City to the same extent as the Project would.

Nonetheless, Alternative 3 would, like the Project, be consistent with population and housing projections, and would not conflict with policies directing growth within the City.

residential program would not result in a proportionate reduction in staffing, as these positions are more focused on meeting needed functions than the size of the building. It is estimated that 35 residential staff would be used, resulting in a net increase of 69 new employees for Alternative 3.

The impact of Alternative 3 would be less than under the Project and also less than significant.

(I) *Public Services*

(i) *Fire Services*

Alternative 3 would include 249,618 square feet of development on the Project Site within a 145-foot tall residential tower containing 315 residential units and 25,000 square feet of ground-level restaurant/retail space.

In comparison, the Project would include 751,777 square feet of development on the Project Site within an 810-foot tall residential tower containing 794 residential units and 12,504 square feet of ground-level commercial uses. This development would increase the number of service calls by emergency responders. However, the analysis of the Project's impact on fire protection and emergency services concludes that the Project Site provides adequate access for fire services and would have sufficient water flow for firefighting service. Further, the Project would meet regulatory requirements for the inclusion of safety features that provide for the public safety and that reduce the demand for firefighting responses. The impact of the Project on fire services would be less than significant without the need for mitigation. The Project would not require the addition of a new firefighting facility whose construction might cause significant environmental impacts.

Although Alternative 3 would include a smaller building and generate a smaller Project Site population than the Project, the senior housing units might result in more emergency medical calls per capita. Notwithstanding, the impact of Alternative 3 would be considered less than that of the Project. Like the Project, the Alternative 3 impact would be less than significant and would not necessitate the construction of any new fire station facility.

(ii) *Police Services*

Alternative 3 would provide 315 residential units, with an estimated population of 729 residents, and 25,000 square feet of ground-level restaurant/retail space.

In comparison, Project would provide 794 residential units, with an estimated population of 1,929 residents, and 12,504 square feet of ground-level restaurant/retain space. The Project would also add an estimated non-residential population of approximately 52 people over the existing conditions.

A number of other factors would reduce the need for the construction of new police facilities to accommodate the Project's population. A number of Project Design Features would enhance safety around the Project Site, including private on-site security with approximately 30-40 on-site staff, a closed circuit television system, and a 24-hour/seven-day security program. Also, LAPD services are supplemented through the provision of private security provided by Business Improvement Districts. The provision of private security reduces the demand for LAPD services, and therefor demand for added physical facilities. Moreover, as discussed in the analysis of the Project's impacts, the LAPD

currently has no plans for a new police station or expansion of an existing station to serve the Project Site and vicinity. For these reasons the Project's demand for police services would not require new facilities to meet its added demand for services and the Project's impact on police services would be less than significant.

Due to its substantially reduced number of residents, Alternative 3 would likely generate less of a demand for LAPD services than the Project. Alternative 3 would include Project Design Features similar to those of the Project and, like the Project, would benefit from private security services provided in the neighborhood, thereby reducing its demand for police officers who would require additional physical facilities. The impact of Alternative 3 on police services would be less than that of the Project, and like the Project would be less than significant; and would also not necessitate construction of any new police station facility.

(iii) Schools

Since Alternative 3 would provide senior housing, Alternative 3 would not generate a notable increase in students in the residential units. The commercial/restaurant uses (25,000 square feet) would not generate more than one student.¹⁸

Based on LAUSD generation factors, the Project's 794 multi-family residential units are estimated to generate approximately 131 elementary school students, 36 middle school students, and 75 high school students for a total of 242 school students. The increase in students from the Project's residential units could contribute to the existing shortfall in classroom space in the area. However, pursuant to Section 65995 of the California Government Code, the Applicant would be required to pay fees in accordance with SB 50, which payment is deemed to constitute full mitigation of a project's impact on schools. As discussed in the analysis of the Project's impact on schools, according to the LAUSD, no new school construction in the area is planned, and future students could be accommodated, if necessary, through the use of such mechanisms as temporary classrooms, multi-track calendars and increased class-room size.

The negligible increase students associated with Alternative 3 would have an insignificant effect on the shortfall in LAUSD classroom space, which is the current condition. The enrollment of a possible few new students with Alternative 3 that might occur would also require the payment of SB 50 fees, however as a senior housing development the rate would be no higher than that charged for commercial/industrial development. Such payment would constitute full mitigation for additional students should they be generated. Like the Project, Alternative 3's few new students could be accommodated through the use of such mechanisms as temporary classrooms, multi-track calendars and increased

¹⁸ Los Angeles Unified School District includes student generation rates for the secondary impacts in new commercial development. The total number of students for all school levels is 0.0378 students per 1,000 square feet of commercial use, based on factors in the 2010 Commercial/Industrial Development School Fee Justification Study, Los Angeles Unified School District, September 27, 2010. (0.0378 x 25,000/1,000 = 0.95 students)

class-room size. The impact of Alternative 3 would be less than that of the Project, and like the Project, would be less than significant.

(iv) *Library Services*

Alternative 3 would provide 315 residential units with an estimated population of 729 residents. In comparison, the Project would provide 794 residential units with an estimated population of 1,929 residents. As the analysis of the Project's potential impact on libraries concludes, the Project's residential population could be accommodated at the libraries serving the Project Site, without creating a need for additional library facilities; and the impact would be less than significant.

With its reduction in population size as compared the Project, the Alternative 3 impact regarding library space needs would be less than that of the Project, and like the Project, would be less than significant.

(v) *Parks and Recreation*

To meet demand for recreational and open space created by the 729 residents from the 315 residential units, Alternative 3 would be required to provide 31,500 square feet of on-site open space and recreation facilities.¹⁹ The open space would be provided pursuant the City's LAMC requirements for private and common open space, with such open space included in the final building design, with the option for providing terrace space on the rooftop of the building.

In comparison, the Project's 794 residential units would generate an estimated 1,929 residents. The Project would provide 123,844 square feet of on-site open space and recreation facilities, of which 2,728 square feet would be included in a publicly accessible plaza and 100,652 square feet would be included for Project residents that would meet City's LAMC requirements for open space. This open space area, with large open to sky landscaped terraces and recreation/spa facilities would reduce the demand for use of local parks by Project residents; and meet the LAMC open space requirements. Residual demand for off-site park space would be limited and would be distributed amongst a large array of existing park facilities. The nearest existing park to the Project, in the South Park neighborhood, Grand Hope Park, is the recipients of fees, via Development and Owner Participation Agreements, that provide a funding stream for maintenance and security of local parks, thus avoiding potential degradation of the facilities that might occur with increased demand. The Project would not require the construction of new facilities or cause substantial degradation of existing facilities at any single park location that would require a new public park. In addition, compliance with existing LAMC regulations requiring the dedication of parkland, payment of in-lieu fees, and/or provision of

¹⁹ While there would be some mix of unit sizes, it is assumed that the average unit size for the senior housing would be a one-bedroom unit or a unit with less than 3 habitable rooms, which would require 100 sf/unit, for a total of 31,500 sf for 315 units.

comparable on-site recreational facilities would reduce the Project impact to a less than significant level.

Alternative 3 would, like the Project, provide on-site private open space facilities for its residents and meet City requirements requiring the dedication of parkland, payment of in-lieu fees, and/or provision of comparable on-site recreational facilities. Because the population of Alternative 3 would be less than that of the Project, its potential to require the construction of new park facilities or generate residual park demand that could not be met on-site would be less than that of the Project. The impact of Alternative 3 would also be less than significant.

(m) *Transportation and Traffic*

(i) *Circulation System Programs, Plans, Ordinances, and Policies*

(a) LOS Analysis based upon LADOT TIS Guidelines

(i) *Construction*

Alternative 3 would include the development of a 12-story building and five levels of parking (including three levels of subterranean parking) that would create traffic, require vehicles entering and leaving the Project Site, and require construction activity adjacent to existing sidewalks. In comparison, the Project would include the development of a 70-story building and 14 levels of parking (including six levels of subterranean parking) that would also create traffic, require vehicles entering and leaving the Project Site, and require construction activity adjacent to existing sidewalks.

The Project would incorporate TRAF-PDF-1, which requires implementation of a Construction Management Plan; and TRAF-PDF-2, which requires implementation of a Pedestrian Safety Plan. The analysis of the Project's construction impact evaluated the impact of transportation for workers, the transport of heavy equipment, haul and delivery truck trips, and Project Site access from the adjacent streets, as well as potential conflict with pedestrians. The analysis concludes that impact resulting from the Project's construction trips (with conversion of truck trips to PCEs) would be less than significant. In addition, it concludes that potential lane and sidewalk closures would be limited and accommodated safely, and that parking, access and transit services would be impacted minimally. Therefore, the Project construction impact would be less than significant without the need for mitigation.

Alternative 3 would involve construction traffic-related activities similar to those of the Project, and the maximum impact of construction on a single day of construction activity would be similar to that of the Project.²⁰ However, the smaller development program

²⁰ The maximum number of construction trips referred to here does not include the one weekend day in which the concrete pour would occur, but rather refers to the day-to-day activities over the course of the construction schedule.

would result in a shorter construction period, fewer construction-related trips, and a shorter time period during which minimal impact to parking, access and transit services could occur. Therefore, the impact of Alternative 3 would, like the Project, be less than significant, and would be less than the Project.

(ii) *Operation*

Alternative 3's development of 315 residential units and 25,000 square feet of restaurant/retail space would generate traffic to and from the Project Site. Alternative 3's net increase in trips over the existing trips at the Project Site are compared to the net increase in trips associated with the Project in **Table V-10, Alternative 3, Net Trip Generation Summary**.²¹ Table V-10 also shows the Project's trip generation and a comparison of Alternative 3 to the Project.

As shown in Table V-10, Alternative 3 would generate approximately 68 percent fewer trips than the Project in the A.M. peak hour, as it would generate 63 net A.M. peak hour trips as compared to the Project's 196 net trips. In the P.M. peak hour, Alternative 3 would generate approximately 55 percent fewer trips than the Project, as it would generate 91 net P.M. peak hour trips as compared to the Project's 200 net trips. Access to Alternative 3's parking would be provided only from the alley.

**TABLE V-10
ALTERNATIVE 3 – NET TRIP GENERATION SUMMARY**

Alternative	Net Trip Generation Estimates						
	Daily	A.M. Peak Hour			P.M. Peak Hour		
		In	Out	Total	In	Out	Total
Alternative 3	1,083	24	39	63	53	38	91
Project	2,227	39	157	196	138	62	200
Alternative 3 Net Trip Increase (Decrease) Compared to Project	(1,144)	(15)	(118)	(133)	(85)	(24)	(108)
SOURCE: The Mobility Group, 2019.							

The analysis of the Project's impacts concludes that when measured against future baseline conditions, the Project would have a potentially significant impact at one intersection in the A.M. peak hour, prior to mitigation, but that the identified mitigation measures, TRAF-MM-1, which provides for a TDM program, and TRAF-MM-2, and which provides improvements to the City's traffic signal control system, would fully mitigate the significant impact and there would be no remaining unmitigated impacts in the A.M. peak hour. The analysis concludes that, in the P.M. peak hour, the Project would have a

²¹ The Calculation of trips for the Alternatives, was prepared by The Mobility Group, and is included in Appendix N of this Draft EIR. The calculations show the assumptions regarding

potentially significant impact at four intersections, prior to the mitigation, but that mitigation measures TRAF-MM-1 and TRAF-MM-2 would fully mitigate these significant impacts at all three impacted intersections and that there would be no remaining unmitigated impacts in the P.M. peak hour.

Based on the impact analysis for the Project, Alternative 3 could potentially reduce the Project's pre-mitigation significant impacts from one to zero intersections in the A.M. peak hour, and that no mitigation measures would likely be required. In the P.M. peak hour, Alternative 3 could potentially reduce the Project's pre-mitigation significant impacts from four to zero intersections, and that no mitigation measures would likely be required.

Impacts of Alternative 3 would be less than those of the Project due to the reduced traffic volumes and would be less than significant without mitigation.

(b) Congestion Management Program

As discussed above, Alternative 3 would generate fewer trips than the Project under daily, A.M. peak hour and P.M. peak hour conditions; as such, Alternative 3 would contribute proportionately fewer trips at the CMP monitoring locations than would the Project.

As the analysis for the Project concludes, the maximum number of trips that the Project would add to any CMP monitoring intersection would be 10 trips in both morning and afternoon peak hours; and the Project would not add more than the 50 trip threshold to any CMP monitoring intersection. The Project would add a maximum of 16 morning and 14 afternoon peak hour one-way trips to freeway segments at the SR-110 south of US-101 station. These low incremental volumes are well below the CMP threshold of 150 trips along freeway segments. The Project's impact at CMP monitoring intersections and freeway segments would be less than significant.

The highest total volume of peak hour transit trips that would be added by the Project would be 53 trips, which would represent approximately 0.14% of the total transit capacity during the peak hour. These 53 trips would be distributed over a large number of public transit services. Metro is currently experiencing system-wide bus and rail decline in ridership; and the Project would not cause the capacity of the transit system to be substantially exceeded.

The Alternative 3 impact relative to CMP thresholds would be less than the Project's less than significant impact, because Alternative 3 would generate fewer AM and PM peak hour trips than the Project.

(c) Plans for Transit, Bicycle, and Pedestrian Facilities

Alternative 3 would develop a mixed-use project with 315 residential units and 25,000 square feet of ground-level restaurant/retail space. As such, Alternative 3 would bring a new residential population to the Project Site that would use the variety of transit and non-motorized modes of travel that are available in the Project Site vicinity. The Project Site is served by a wide variety of transit options, ranging from heavy rail, rapid bus, local bus,

and express bus services, as well as access to bicycle and pedestrian facilities. Alternative 3 would include provisions for bicycle facilities per the requirements of the LAMC.

As discussed in the analysis of the Project's construction impacts, with the incorporation of Project Design Features TRAF-PDF-1 and TRAF-PDF-2, which incorporate a Construction Management Plan and a Pedestrian Safety Plan into the Project, the integrity and safety of pedestrian access to and continued use of adjacent alternative transportation facilities during construction would be maintained in the Project Site vicinity. As such, Project construction would be consistent with policies and plans for public transit, bicycle and pedestrian facilities, and the impact would be less than significant.

During Project operations, the Project would provide pedestrian amenities such as landscaping, setbacks, shade, benches and pedestrian-scale lighting along the Olive Street and 11th Street edges of the Project Site, and pedestrian-scale retail commercial uses along street frontages. A pedestrian plaza would be provided at the corner of Olive Street and 11th Street to enhance pedestrian circulation. The frontages of the Project Site would meet the design and landscaping requirements included in the Downtown Design Guide and the MyFig Project. The Project would incorporate TRAF-MM-1, which requires implementation of a transportation demand management program that includes provisions for: bicycle facilities; information regarding the availability of, and encouraging the use of, public transit; and the payment of funds to support off-site improvements regarding bicycle services and first/last mile transit accessibility. As the analysis of the Project's impacts concludes, the Project would be consistent with State, regional and local plans and programs whose primary focus is to increase density in proximity to existing public transit options, including rail and bus services, as well as bike lanes and a high quality pedestrian network, thereby supporting and encouraging the use of alternative modes of transportation. As such, the Project's impact regarding these plans and programs would be less than significant.

Like the Project, Alternative 3 would incorporate Project Design Features TRAF-PDF-1 and TRAF-PDF-2, which provide a Construction Management Plan and a Pedestrian Safety Plan. These features would ensure that the integrity and safety of pedestrian access to and continued use of adjacent alternative transportation facilities during construction would be maintained. With these features, construction of Alternative 3 would be consistent with policies and plans for public transit, bicycle and pedestrian facilities, and like the Project, its impact would be less than significant.

During operations, Alternative 3 would link to the local multi-modal transportation facilities in a manner similar to the Project. With its smaller population, however, Alternative 3 would generate less demand on nearby transit facilities and is anticipated to generate less pedestrian or bicycle traffic. The impact of Alternative 3 would be less than significant, and similar to that of the Project.

(ii) *VMT Analysis pursuant to State CEQA Guidelines
Section 15064.3*

Alternative 3 would include the development of 315 residential units and 25,000 square feet of restaurant/retail space that would generate more than 250 daily trips, thus exceeding the VMT analysis screening threshold and requiring a VMT analysis using the City's VMT Calculator. Accordingly, a VMT analysis for Alternative 3 has been performed and is included in Appendix N-6, *EIR Alternatives – VMT Analyses*, of this Draft EIR. As described therein, the Household VMT per Capita for Alternative 3 would be 3.3 compared to the threshold of 6.0, and would therefore be less than significant. Also, the Work VMT per Capita of Alternative 3 would be less than significant, as its retail component contains small-scale, local-serving retail land uses with less than 50,000 square feet.

The analysis of the Project's VMT impacts reflects a Household VMT per Capita of 4.2, and also includes a retail component that is small-scale, local serving and less than 50,000 square feet in size. Therefore, the impacts of Alternative 3 would be less than the Project regarding the VMT analysis and both are less than significant.

(iii) *Design Feature Hazards*

Alternative 3 would develop ground-level restaurant/retail uses and two access driveways into its parking structure that would be located on the alley behind the Project Site.

As the analysis of the Project's impacts concludes, access for the Project would be provided in a manner that is safe and that would not create hazardous conditions. Project Site access would be provided by one driveway on Olive Street and two driveways in the alley that connects 11th Street and Olympic Boulevard between Olive Street and Grand Avenue. The Olive Street driveway would have two lanes to accommodate inbound and outbound residential and commercial traffic. It would be designed to LADOT standards with adequate visibility, would provide for pedestrian safety, and would provide sufficient capacity to prevent queuing in the City's right-of-way. The impact regarding potential hazardous design conditions would be less than significant.

(iv) *Emergency Access*

Alternative 3 would involve construction activities, including excavation and haul and materials truck traffic, and operational activities, including on-site activity and traffic, associated with 315 senior residential units and 25,000 square feet of restaurant/retail space.

Under both the Project and Alternative 3, construction activities would include installing fences that would encroach into the public right-of-way (e.g., sidewalk, bicycle lanes and roadways) adjacent to the Project Site during off-site or streetscape improvements. Both the Project and Alternative 3 would implement a Construction Management Plan (TRAF-PDF-1), including a Worksite Traffic Control Plan that would ensure that traffic flow and access would be maintained throughout the course of construction activities.

Operation of both the Project and Alternative 3 would generate traffic in the Project Site vicinity and increase traffic within the area. However, emergency access to the Project Site and surrounding area would continue to be provided on adjacent streets similar to existing conditions. There are no roadways bordering the Project Site designated as an emergency or disaster route by the City. Both the Project and Alternative 3 would provide direct vehicular access to the Project Site via two access driveways off of the Alley that connects Olive Street and 11th Street (the Project would provide a third direct access off Olive Street). The impact regarding emergency access would be less than significant for both the Project and Alternative 3. However, because Alternative 3 would generate less traffic than the Project and place fewer cars on the road during a potential emergency situation, the impact of Alternative 3 would be less than that of the Project.

(n) *Tribal Cultural Resources*

Like the Project, the development of Alternative 3 would require excavation into existing soils that could potentially encounter known or previously unknown Tribal cultural resources.

Tribal consultation regarding the Project has occurred pursuant to AB 52 as part of this EIR. No substantial evidence was provided to support a claim that known sacred lands or Tribal cultural resources overlap with or occur within the Project Site; or that any known sacred lands or Tribal cultural resources would be affected by the Project. The Project would be subject to compliance with City's standard conditions of approval for the treatment of inadvertent tribal cultural resource discoveries. Further, the Project's evaluation of cultural resources identifies a potentially high sensitivity for buried archaeological resources that, once encountered, could potentially be considered a tribal cultural resource. Mitigation measure CULT-MM-2 provides for unanticipated discovery of such archaeological resources. Therefore, should tribal cultural resources be encountered during construction activities, mitigation per PRC Section 21084.3 would be implemented in order to address these resources.

As Alternative 3 would also require a similar construction program involving excavation into the subsurface that could potentially disturb previously unknown Tribal cultural resources, it would also be subject to the City's standard conditions of approval and implementation of mitigation measures identical to those identified for the Project. The impact of Alternative 3 could be reduced due to a shallower level of excavation; and like the Project, the impact would be less than significant.

(o) *Utilities*

(i) *Wastewater*

(a) *Construction*

Construction of the Project and Alternative 3 would require workers that would generate a small amount of wastewater. Such wastewater generation would be temporary and would not contribute wastewater flows to the local wastewater collection system. Portable

restrooms would be provided and serviced by a private company, in accordance with the NPDES General Construction Permit. The resultant waste would be disposed of off-site by a licensed waste hauler, and in accordance with applicable regulations, it is expected that the wastewater generated during Project construction would be treated within the Hyperion Sanitary Sewer System. Therefore, relocation or construction of new or expanded wastewater treatment facilities would not be required for construction activities.

Alternative 3 would require a shorter construction schedule with fewer workers than the Project and would therefore generate less wastewater than the Project. As is the case with the Project, the impact on wastewater due to construction would be less than significant.

(b) Operations

Alternative 3 would develop 249,618 square feet, in comparison to the Project's 751,777 square feet, which represents a reduction of approximately 67 percent as compared to the Project. Alternative 3 would include 25,000 square feet of restaurant/retail uses and 315 residential units. The total amount of wastewater that would be generated from these uses is shown in **Table V-11, Alternative 3 – Estimated Wastewater Generation**. As indicated, operation of Alternative 3 would generate a total amount of wastewater of 64,650 gpd.²²

In comparison, the Project would generate 129,004 gpd of wastewater, which is 64,354 gpd more than Alternative 3. The analysis of the Project's impacts concludes that the existing infrastructure that serves the Project Site is sufficient for conveying, treating and disposing the Project's wastewater generation, and that, therefore, the Project's impact to wastewater would be less than significant, without the need for mitigation.

TABLE V-11
ALTERNATIVE 3 - ESTIMATED WASTEWATER GENERATION

Type of Use ^a	Quantity ^a	Generation Factor (gpd/unit) ^a	Wastewater Generation (gpd)
Alternative 3^c			
Residential –Avg 1 bdr	315 units	110/unit	34,650
Retail/Restaurant ^b	25,000 sf/1,000 seats	30/seat	30,000
Alternative 3 Total			64,650
Project Total Wastewater			129,004

²² This estimate of wastewater generated does not net-out the wastewater generation from the existing uses on the Project Site for the Project or the Alternative. The analysis of wastewater in Section IV.O.1, *Wastewater*, of this Draft EIR uses the gross value as the total amount of wastewater is more pertinent to evaluating impacts on local infrastructure. The use of the gross value for evaluating impacts on treatment capacity, which is only affected by the net increase, provides a conservative analysis. Further, the analysis is conservative as it does not take into account water conservation features.

Type of Use ^a	Quantity ^a	Generation Factor (gpd/unit) ^a	Wastewater Generation (gpd)
Alternative 3 (Decreased) Wastewater Generation Compared to Project			(64,354)
Abbreviations: gpd – gallons per day, sf = square feet, ksf = 1,000 square feet			
^a The average daily flow based on the Bureau of Sanitation sewage generation factors.			
^b The analysis of wastewater for the Project is based on the conservative assumption that all of the retail space would be occupied by full service restaurant uses. For consistency, a similar assumption is used for Alternative 3. It is assumed that a restaurant seat would occupy 25 sf ^c . The unit mix would vary but it is assumed the on average the units would be 1-bedroom unit.			
SOURCE: ESA, 2018.			

Alternative 3 would generate 50 percent less wastewater than the Project and therefore would have less of an impact regarding the conveyance and treatment of wastewater than the Project's less than significant impact. Therefore, Alternative 3's impact with respect to wastewater generation and treatment capacity would also be less than significant.

(ii) *Water Supply*

(a) *Construction*

The Project and Alternative 3 would create a temporary demand for water for construction workers and construction activities such as soil compaction and earthwork, dust control, mixing and placement of concrete, and equipment and site cleanup. These activities would occur incrementally throughout the construction period.

Water for construction activities may be trucked in by private purveyors, but it could also be provided by tapping into the existing water lines that are already serving the Project Site, or a combination of both. The water demand for construction would be less than the demand for the longer term Project operations for which water supply and infrastructure is available. Therefore, relocation or construction of new or expanded water facilities, would not be required for construction activity.

Alternative 3 would require a shorter construction schedule with fewer workers than the Project and would therefore generate less demand for water consumption than the Project. As is the case with the Project, the Alternative 3 impact on water services due to construction would be less than significant.

(b) *Operations*

Alternative 3 would develop 249,618 square feet, in comparison to the Project's 751,777 square feet, which represents a reduction of approximately 67 percent as compared to the Project. Alternative 3 would include 25,000 square feet of restaurant/retail uses and 315 residential units. The amount of water (water demand) that would be required to meet the needs of Alternative 3's uses is shown in **Table V-12, Alternative 3 – Estimated Net Water Demand**. Alternative 3 would generate a net increase in demand for 49,155 gpd of water over existing levels.

In comparison, the Project would generate an increase in water demand of 108,070 gpd, after the implementation of mandatory and voluntary water conservation measures, which is approximately 58,995 gpd more than the water demand for Alternative 3. There are sufficient water supplies available to meet the Project's demand for water and sufficient infrastructure to deliver the Project's water demand to the Project Site. Therefore, the Project's impact related to water demand is less than significant.

Alternative 3 would generate a water demand that is approximately 55 percent less than the Project's less than significant water demand. Therefore, Alternative 3 would have also have a less than significant impact with respect to water demand.

TABLE V-12
ALTERNATIVE 3 - ESTIMATED NET WATER DEMAND

Type of Use ^a	Quantity ^a	Generation Factor (gpd) ^a	Water Demand (gpd)
Alternative 3			
Residential –Avg 1 bdr ^f	315 units	110/unit	34,650
Retail/Restaurant ^b	25,000 sf/1,000 seats	30/seat	30,000
Other/Misc. ^c			17,693 ^c
Subtotal			82,343
Less Existing ^d			291
Reduction for Conservation (40%) ^e			32,937
Alternative 3 Net Total			49,115
Project Water Demand ^d			108,070
Alternative 3 (Decreased) Water Demand Compared to Project			(58,995)

Abbreviations: gpd – gallons per day, sf = square feet, ksf = 1,000 square feet

^a The average daily flow based on the Bureau of Sanitation sewage generation factors.

^b The analysis of water supply for the Project is based on the conservative assumption that all of the retail space would be occupied by full service restaurant uses. For consistency, a similar assumption is used for Alternative 3. It is assumed that a restaurant seat would occupy 25 sf.

^c The calculation of the Project's water demand is based on an initial estimated amount of 180,118 gpd according to the sewer generation factors that serve as a baseline estimate prior conservation credits. The 180,118 gpd is comprised of 111,827 gpd for residential uses, 15,000 gpd for retail/restaurant uses and 53,291 gpd for the remaining ancillary uses including such uses as building amenities (e.g., spa, gym, community room), landscaping and cooling tower. To account for the Alternative's non-residential/non-retail uses, which are ancillary to the primary uses, it has been assumed that the Alternative's consumption with 249,618 square feet of development would be proportional to that of the Project with 751,777 square feet, or 0.332 percent. To this end $0.332 \text{ percent} \times 53,291 \text{ gpd} = 17,693 \text{ gpd}$.

^d The existing water consumption at the Project Site was calculated and incorporated into the estimate of water demand in the Project's WSA.

^e This total is after water conservation required by ordinance and additional project conservation measures; and reduction credit for water consumption by existing uses on the Project Site. The WSA

calculation for Project gives a credit of approximately 40 percent. The same credit is assumed for the Alternative, even though Alternative 3 would not pursue ELDP certification.

^f The unit mix would be varied but is estimated to average out to the equivalent of 1-bedroom units for senior housing.

SOURCE: ESA, 2019.

(3) Relationship of Alternative 3 to Project Objectives

Alternative 3 would provide a building that would vary in design and uses from the Project. It would develop the entire buildable area of the Project Site with a 12-story, 145-foot high building, in comparison to the Project's 70-story tower over podium design. Further, the amount of development would be substantially reduced under Alternative 3 as compared to the Project, which would prevent Alternative 3 from achieving the same level of effectiveness as the Project in meeting the Project's objectives.

Alternative 3 would meet the following objectives:

- It would provide infill housing in an employment rich mixed-use area, improving the jobs/housing ratio of the Downtown area in accordance with state, regional and local laws and policies supporting the reduction of VMTs, air quality emissions, and greenhouse gas emissions, but not to the same level as the Project. (Objective 2)
- It would provide street-level commercial uses, and pedestrian enhancements with linkages to nearby commercial and entertainment venues. (Objective 3)

Alternative 3 would only partially meet the following objectives:

- It would provide high-density, high-rise housing in South Park with accessibility to alternative transportation modes in a HQT/TPA; although the density and number of housing units would be greatly reduced; and the Alternative would not maximize the utilization of the Project Site through implementation of TFAR provisions. It would not address improvements to the jobs/housing balance to the same extent as would the Project. (Objective 1)
- It would provide new development with a building design and construction that would promote resource conservation, including waste reduction, efficient water management techniques, and conservation of energy; however, it would not necessarily include the same level of sustainability features as would the Project, which is a LEED Gold certification program. (Objective 5)
- It would provide an economically viable development offering short- and long-term employment opportunities and tax revenue for the City, but not to the same level as the Project and with a less substantial investment in Los Angeles. (Objective 6)

Alternative 3 would not meet the following objectives:

- It would not provide an architecturally significant and distinctive high rise building in the South Park neighborhood. It would not become a major contributor to the

Downtown skyline and would not include the same distinctive cut-outs and unique tower characteristics as would the Project, as it would develop a shorter tower with less articulation of massing. (Objective 4)

7. Environmentally Superior Alternative

Section 15126.6(e)(2) of the State CEQA Guidelines indicates that an analysis of the alternatives to a proposed project in an EIR shall identify an environmentally superior alternative among the alternatives evaluated and that if the “no project” alternative is the environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining alternatives.

Selection of an environmentally superior alternative is based on a comparison of the alternatives that would reduce or eliminate the significant impacts associated with the Project, and on a comparison of the remaining environmental impacts of each alternative to the Project.

A comparison of the impacts between the Project and the three Alternatives analyzed in this Draft EIR (Alternative 1 - No Project – Existing Buildings with Increased Utilization Program; Alternative 2 - Reduced Density – FAR of 6:1 (No TFAR); and Alternative 3 - Reduced Density – Increased Commercial Use with Senior Housing – FAR 6:1 (No TFAR)) is presented in **Table V-13, Comparison of Impacts Between the Project and Each Alternative**.

Of the alternatives analyzed in the Draft EIR, Alternative 1 would be considered to be the environmentally superior alternative because it is the only Alternative that would avoid the Project’s significant construction noise impact. Further, Alternative 1 would generally have lower impacts regarding the other environmental topics.

However, because Alternative 1 is the No Project Alternative, the identification of an environmental superior alternative among the other alternatives is required. None of the remaining alternatives would reduce the Project’s significant construction noise impact to a less than significant level. However, Alternative 2, with only one level of subterranean parking, would decrease the number of days in which the significant construction impact can occur, more so than would Alternative 3. In regard to traffic impacts, Alternative 3 would avoid the Project’s pre-mitigation significant impacts during operation. Other impacts for Alternative 2 and Alternative 3 would generally be similar to one another and to the Project’s impacts. Therefore, of the two Alternatives, Alternative 2 would be considered the environmentally superior alternative as it would have a greater effect in reducing the Project’s significant construction noise impact and would reduce the Project’s operational traffic impacts.

However, Alternative 2 would not include a TFAR that enables the Project to provide the density, and particularly the floor area, to support a high-level of residential density in Downtown Los Angeles, as encouraged by goals and policies established by SCAG and the City for focusing density in HQTAs and TPAs. Providing increased density in transit-

rich areas supports other policy objectives to reduce VMT with associated reductions in GHG and air pollutant emissions, to improve the current jobs/housing balance, and to maximize the use of existing and planned transit and utility infrastructure. In sum, while Alternative 2 and Alternative 3 would have reduced impacts as compared to those of the Project, they would not provide the same reductions or efficiencies regarding impacts involving travel by passenger vehicles at the regional- and City-scale that the Project would provide. Further, Alternative 2 and Alternative 3 would not meet some of the Project Objectives and would only partially meet other objectives.

TABLE V-13
COMPARISON OF IMPACTS BETWEEN THE PROJECT AND EACH ALTERNATIVE

	Project Impact	Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
AESTHETICS				
Scenic Vistas	No Impact	Less (No Impact)	Similar (No Impact)	Similar (No Impact)
Scenic Resources	No Impact	Less (No Impact)	Similar (No Impact)	Similar (No Impact)
Scenic Quality Regulations	No Impact	Less (No Impact)	Similar (No Impact)	Similar (No Impact)
Light and Glare	No Impact	Less (No Impact)	Less (No Impact)	Less (No Impact)
AIR QUALITY				
Conflict or Consistency with Air Quality Plans	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Cumulative Considerable Increase of Criteria Pollutants				
<i>Construction</i>	Less than Significant with Mitigation	Less (Less than Significant)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
<i>Operation</i>	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)

Project Impact		Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
Exposure of Sensitive Receptors to Pollutant Concentrations				
Construction	Less than Significant	Less (Less Than Significant)	Less (Less than Significant)	Less (Less than Significant)
Operation	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Other Emissions	Less than Significant	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
CULTURAL RESOURCES				
Historical Resources	Less than Significant with Mitigation	Less (No Impact)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Archaeological Resources	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant)w Mitigation)
Human Remains	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
ENERGY				
Efficient Energy Consumption	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Conflict with Plans	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Relocation of Infrastructure	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)

Project Impact		Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
GEOLOGY AND SOILS - PALEONTOLOGY				
Surface fault rupture, strong seismic ground shaking, seismic related ground failure, or landslides.	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
Soil Erosion or Loss of Topsoil	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Unstable Geologic Units	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Expansive Soils	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Soils Supporting Septic Tanks	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Paleontological Resources and Geologic Features	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
GREENHOUSE GAS EMISSIONS				
Greenhouse Gas Emissions	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
HAZARDS AND HAZARDOUS MATERIALS				
Routine Transport, Use, or Disposal of Hazardous Materials	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
Upset and Accident Conditions	Less than Significant with Mitigation	Less (Less than Significant)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)

	Project Impact	Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
Use of Hazardous Materials within one-quarter Mile of an Existing School	Less than Significant with Mitigation	Less (Less than Significant)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Hazardous Materials Database Listings	Less than Significant with Mitigation	Less (No Impact)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Proximity to Airport	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Emergency Response/Evacuation Plans	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Wildland Fire Hazards	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
HYDROLOGY AND WATER QUALITY				
Water Quality Standards and Groundwater Quality				
<i>Construction</i>	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
<i>Operation</i>	Less than Significant	Greater (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Changes in Groundwater Supplies or Recharge	Less than Significant	Similar (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)

Project Impact		Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
Alteration of Drainage Pattern Resulting in Erosion, Siltation, or Flooding				
<i>Construction</i>	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
<i>Operation</i>	Less than Significant	Greater (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Stormwater Drainage System Capacity				
<i>Construction</i>	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
<i>Operation</i>	Less than Significant	Greater (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Pollutant Release in Flood Hazard, Tsunami or Seiche Zones	Less than Significant	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Implementation of Water Quality Control Plans	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
LAND USE AND PLANNING				
Division of an Established Community	Less than Significant	Similar (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
Conflict or Consistency with Land Use Plans, Policies, Regulations	Less than Significant	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)

Project Impact		Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
NOISE				
Temporary or Permanent Increase in Noise Levels in Excess of Established Standards				
<i>Construction</i>	Significant and Unavoidable with Mitigation	Less (No Impact)	Less (Significant and Unavoidable with Mitigation)	Less (Significant and Unavoidable with Mitigation)
<i>Operation</i>	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Groundborne Vibration and Noise				
<i>Construction</i>	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
<i>Operation</i>	Less than Significant	Less (Less Than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Noise Exposure Near Airports	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
POPULATION AND HOUSING				
Population and Housing	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
PUBLIC SERVICES				
Fire Services	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Police Services	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Schools	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)

Project Impact		Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
Library Services	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Parks and Recreation	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
TRANSPORTATION AND TRAFFIC				
Circulation System Programs, Plans, Policies, Ordinances				
LOS Analysis based upon LADOT TIS Guidelines				
<i>Construction</i>	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
<i>Operation</i>	Less than Significant with Mitigation	Less (Less than Significant)	Less (Less than Significant with Mitigation)	Less (Less than Significant)
Congestion Management Program	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Plans Regarding Transit, Bicycle, and Pedestrian Facilities	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
VMT Analysis pursuant to State CEQA Guidelines Section 15064.3	Less than Significant	Less (Less than Significant)	Similar (Less than Significant)	Less (Less than Significant)
Design Feature Hazards	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
Emergency Access	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)

Project Impact		Alternative 1: No Project/No Build – Existing Buildings with Full Rental Program.	Alternative 2: Reduced Density – FAR of 6:1	Alternative 3: Reduced Density – Increased Commercial Use with Senior Housing – FAR of 6:1
TRIBAL CULTURAL RESOURCES				
Tribal Cultural Resources	Less than Significant	Less (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
UTILITIES AND SERVICE SYSTEMS				
Wastewater				
<i>Construction</i>	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
<i>Operation</i>	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)
Water Supply				
<i>Construction</i>	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
<i>Operation</i>	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Less (Less than Significant)

Chapter VI

Other CEQA Considerations

1. Significant Unavoidable Impacts

Section 15126.2(c) of the State California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. Following is a summary of the single impact of the Project that is concluded to be significant and unavoidable. This impact, Construction Noise, is also described in detail in Section IV.J, *Noise*, of this Draft EIR.

a) Construction Noise

As concluded in Section IV.J, *Noise*, of this Draft EIR, construction of the Project would result in the exposure of persons to noise levels in excess of the noise analysis threshold of 74 dBA L_{eq} at sensitive receptor location R1 (mixed-use residential adjacent to the north side of the Project Site) and 75 dBA L_{eq} at sensitive receptor location R2 (mixed-use residential across the alley on the west side of the Project Site). Prior to mitigation, maximum noise levels during various construction phases would range from 77 dBA L_{eq} during the architectural coating phase to 98 dBA L_{eq} for site preparation at location R1; and it would range from 77 dBA L_{eq} during the architectural coating phase to 91 dBA L_{eq} during the site preparation phase at location R2. These maximum noise levels would occur intermittently, with reduced levels at most times and on most days.

Implementation of mitigation measures NOISE-MM-1 and NOISE-MM-2 require the placement of noise barriers between the Project Site and off-site uses, with 20-foot-tall sound fencing at ground level and noise curtains affixed to vertical structures to block the line-of-sight between noise producing equipment and the adjacent residential sensitive receptor locations. However, ground level barriers cannot be effective where ground level fencing would not be tall enough to block sound at taller/high-rise building levels, and such fencing may need to be opened from time to time to accommodate construction activity. Further, the use of noise curtains or noise blankets cannot be applied where they would interfere with the safety, integrity, and necessary construction activities of framing and vertical building construction. When effective, the sound barriers can provide 10 dBA of noise reduction between the noise sources and line of site to the adjacent sensitive uses. NOISE-MM-3 and NOISE-MM-4 require the use of proper construction equipment noise shielding and muffling devices during construction activities, which can reduce noise levels by an additional 8 dBA. Other mitigation measures, NOISE-MM-5 and NOISE-MM-6, are offered to notify and coordinate with the public in efforts to reduce potential noise impacts. However, for the reasons noted, it is not feasible to provide noise

barriers of sufficient height and/or location at all significantly impacted locations between the Project Site and nearby sensitive receptors to avoid exceeding the noise standards at some locations.

If one or more nearby related projects were constructed concurrently with the Project, the Project could potentially contribute to a significant and unavoidable cumulative construction noise impact at sensitive receptors located between the Project Site and those related projects. Of the eight sensitive receptor locations evaluated, four would lie between the Project and nearby related projects in a manner that would be subject to such cumulative effects. These include Sensitive Receptors R1 and R2, as discussed above for Project impacts. They also include Sensitive Receptor R6, multifamily housing located at Olympic Boulevard and Olive Street; and Sensitive Receptor R8, mixed-use development at the corner of 12th Street and Margo Street, south of the Project Site.

2. Reasons Why the Project Is Being Proposed Notwithstanding Significant and Unavoidable Impacts

In addition to identifying a project's significant and unavoidable impacts, Section 15126.2(c) of the State CEQA Guidelines states that the reasons why the project is being proposed, notwithstanding its significant and unavoidable impacts, should be described.

As described further below, this Project is being proposed, notwithstanding its significant and unavoidable construction noise impact, because the Project would provide a mixed-use high-rise development with residential units, neighborhood serving commercial (i.e., restaurant/retail) uses, and open space, including a ground-level public plaza, consistent with City policies regarding development of the South Park District in the Central City Community Plan Area, without creating any long-term project-level significant impacts on the environment. The Project's sole project-level significant impact is a short-term, temporary construction noise impact that is commonly unavoidable in highly developed urban areas. This short-term and temporary significant construction noise impact would be reduced by the implementation of the recommended mitigation measures identified in Section IV.J, *Noise*, of this Draft EIR. However, the placement of noise barriers between the Project's construction and all of the adjacent residential units is not feasible due to the heights of the adjacent buildings and constraints regarding the location of development within the Project Site.

In addition, development of the Project at this Project Site would support land-use patterns that reduce vehicle miles traveled and associated air pollutant and greenhouse gas (GHG) emissions, and would provide efficiency in the use of infrastructure and support alternative modes of transportation. By providing high-density housing in the City in proximity to existing employment opportunities, the Project would also improve the Downtown area jobs/housing ratio, which also reduces vehicle miles traveled and associated automobile exhaust emissions. The Project would provide high-density

housing with street-level commercial uses that would be central to existing shopping, restaurants and entertainment, and close to regional venues including LA LIVE, Staples Center, and the Los Angeles Convention Center.

The Project would introduce an architecturally distinctive development that would contribute to the City's evolving skyline and would activate the pedestrian realm along adjacent street frontages. The Project would improve pedestrian connectivity, safety, and security at the Project Site through the use of improved sidewalks (widening the W. 11th Street sidewalk to 15 feet from 12 feet and maintaining the S. Olive Street sidewalk at 17 feet), the widening of the sidewalks into the Plaza at the corner of 11th Street and Olive Street, , landscaping, ground-floor commercial uses, and outdoor activity to attract and improve the pedestrian experience between LA LIVE, Staples Center, the Los Angeles Convention Center, and nearby transit options. The Project would be located within a City-identified Transit Priority Area (TPA) and a Southern California Association of Governments (SCAG)-identified High Quality Transit Area (HQTA), meaning that the Project Site is within one-half mile of a major transit stop that is existing or planned. Pedestrian activity and the use and enjoyment of outdoor spaces would be encouraged by organizing ground level development around a public plaza with aesthetically pleasing landscaping and a public art display. Streetscape improvements and landscaping would be coupled with ground-level commercial uses to encourage pedestrian activity.

The Project has been certified by the Governor as an Environmental Leadership Development project (ELDP).¹ Such projects must meet high sustainability standards and provide specified economic benefits to the region. The Project would meet the requirements for certification as an ELDP, as follows: the Project would be a mixed-use development on an urban infill site that would achieve the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification (or better), maximize transit friendly features (resulting in a minimum 15 percent greater transportation efficiency), be 'Net-Zero' in carbon/GHG emissions, and would result in a minimum investment in California of \$100 million.

Further, the Project would enhance the economic vitality of the City, and more specifically, the Downtown area, by providing an economically viable development that would increase local tax revenues (sales and property taxes) and would create job opportunities. It would also contribute to the local economy of the Downtown area and its role as an important center of economic activity within the City. The Project would create new jobs during both construction and long-term operations, and it would accommodate new residents and add employees to the area to support local businesses and increase revenues for the City.

¹ The Project was certified by the Governor on April 27, 2018 with concurrence by the State's Joint Legislative Budget Committee on May 24, 2018. <http://opr.ca.gov/ceqa/california-jobs.html>. Accessed on August 24, 2018.

3. Significant Irreversible Environmental Changes

Pursuant to State CEQA Guidelines Section 15126.2(d), an EIR must address any significant irreversible environmental changes that would occur if the Project were implemented. As stated in State CEQA Guidelines Section 15126.2(d):

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter likely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.

The Project would necessarily consume limited, slowly renewable and non-renewable resources. This consumption would occur during the construction phase of the Project and would continue throughout its operational lifetime. Project development would require a commitment of resources that would include: (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the Project Site. Project construction would require the consumption of resources that are nonrenewable or may renew so slowly as to be considered nonrenewable. These resources would include the following construction supplies: certain types of lumber and other forest products; aggregate materials used in concrete and asphalt such as sand, gravel and stone; metals such as steel, copper, and lead; petrochemical construction materials such as plastics; and water. Furthermore, nonrenewable fossil fuels such as gasoline and oil would also be consumed in the use of construction vehicles and equipment, as well as the transportation of goods and people to and from the Project Site.

Project operation would continue to expend nonrenewable resources that are currently consumed within the City. These include energy resources such as electricity and natural gas, petroleum-based fuels required for vehicle-trips, fossil fuels, and water. Fossil fuels would represent the primary energy source associated with both construction and ongoing operation of the Project, and the existing, finite supplies of these natural resources would be incrementally reduced.

At the same time, the Project would contribute to a land use pattern that would reduce reliance on private automobiles and the consumption of non-renewable resources when considered in a larger context. Most notably, the Project would provide housing and commercial uses in the Downtown Los Angeles area in close proximity to cultural and entertainment, commercial, restaurant, and office activities. The Project Site is located within a TPA/HQTA. Given its location, the Project would support pedestrian access to a considerable range of entertainment, employment, and commercial activities. The Project also provides excellent access to the regional transit system as the Project Site is located

four blocks from the Los Angeles County Metropolitan Transportation Authority (Metro) Pico Station at Flower Street & 12th Street/Pico Boulevard which serves the Metro Blue Line and the Metro Expo Line, and six blocks from the 7th Street/Metro Center Station at Figueroa Street & 7th Street, which serves the Metro Red/Purple, Blue and Expo Lines. The Project Area (within approximately one quarter mile of the Project) is currently served by a total of seven local and inter-city transit operators. Metro operates two rail lines (Metro Blue and Metro Expo lines) at the Pico & Flower Station, the Silver Line, five Rapid bus lines, two Express lines and twenty-three local lines in the Project Area. In addition, in the future, the planned LA Streetcar that will circulate in Downtown will also run along 11th Street adjacent to the Project Site. These factors would contribute to a land use pattern that is considered to reduce the consumption of non-renewable energy resources that are required for transportation.

Furthermore, the Project would be designed to comply with the State and City green building standards. The Project would also comply with the Los Angeles Green Building Code, which builds upon and sets higher standards than those incorporated in the California Green Building Standard (CALGreen) Code. The Project would be constructed in compliance with the Title 24 and the CALGreen Code, and incorporate various sustainability features, including but not limited to low-flow plumbing fixtures in guestrooms and common areas, and landscaping that incorporates a plant palette of native and drought-tolerant plantings and uses low-flow irrigation. The Project would be implemented as an ELDP that would increase the level of the Project's sustainable development standards by requiring achievement of the LEED Gold certification (or better) level, maximization of transit friendly features (resulting in a minimum 15 percent greater transportation efficiency), and achievement of 'Net-Zero' increase in carbon/ GHG emissions. The Project would achieve several objectives of the City of Los Angeles General Plan Framework Element, SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP) for establishing a regional land use pattern that promotes sustainability.

The Project would support pedestrian activity in the downtown area, and contribute to a land use pattern that reduces vehicle trips and air pollution by locating employment opportunities, restaurants and entertainment within walking distance and proximity to public transit. Further, the Project's inclusion of bicycle parking, as discussed above, and implementation of a Transportation Demand Management (TDM) Program, mitigation measure TRAF-MM-1, would encourage the use of alternative modes of transportation.

The Project's continued use of non-renewable resources would be on a relatively small scale and consistent with regional and local growth forecasts in the area, as well as State and local goals for reductions in the consumption of such resources. The loss of such resources would not be highly accelerated when compared to existing conditions and such resources would not be used in a wasteful manner. The Project Site, itself, contains no energy resources or other natural resources that would be precluded from future use through Project implementation. The Project would contain no land use activities, or use

of hazardous materials, that could cause accidents or spills that would contaminate nearby land or otherwise preclude such land from future uses. As further discussed in Section IV.D, *Energy*, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy; or conflict with state/local plans for renewable energy or energy efficiency.

Because the consumption of resources for construction and operation would be dedicated to the Project Site, their consumption would be irreversible. Irretrievable commitment of limited, slowly renewable, and non-renewable resources, would limit the availability of these resources and the Project Site for future generations or for other uses. While the availability of these resources is finite, their consumption, replenishment and use of alternative resources is accounted for in plans for future resource consumption.

Therefore, although irreversible environmental changes would result from the Project, such changes are concluded to be less than significant, and the limited use of nonrenewable resources that would be required by Project construction and operation is justified.

4. Growth-Inducing Impacts

Pursuant to State CEQA Guidelines Section 15126.2(e), an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

a) Direct Growth (Population, Housing and Economic Growth)

The Project would provide 794 residential units and approximately 12,504 square feet of neighborhood-serving commercial (restaurant/retail) uses. The Project would provide new housing and employment opportunities on an infill site located within the South Park neighborhood of the Central City Community Plan (Community Plan) Area and a City-identified Transit Priority Area (TPA) and SCAG-identified High Quality Transit Area (HQTAs). The Project would also contribute to the economy of the Downtown area and the region.² The Project's new residential units would provide housing for an estimated 1,929 new residents and the development would provide on-site jobs for an estimated 49 net new employees. The Project would therefore contribute to bringing the jobs/housing ratio closer to balance by providing housing units in the Community Plan Area. The Project's mix of uses would be representative of the type of high-density and mixed-use development anticipated in Downtown Los Angeles, and promoted in TPAs/HQTAs. As discussed in detail and concluded in Section IV.I, *Land Use and Planning*, and in Section IV.K, *Population and Housing*, the Project's new housing and employment is within the

² An economic and fiscal impact analysis report, "An Economic and Fiscal Impact Analysis for 1045 Olive," prepared by LAEDC Institute for Applied Economics, is included in Appendix Q, of this Draft EIR.

range of development anticipated within, and is consistent with, the SCAG regional forecasts for the City. Accordingly, the Project would not result in unplanned growth.

b) Indirect Growth (Utility and Infrastructure Growth)

The Project Site is located in a fully developed urbanized area that is served by existing infrastructure (e.g., roads and utilities), and community service facilities. The Project would not have indirect effects on growth through such mechanisms as the extension of roads and infrastructure, since the Project is an infill project that would use the existing transportation and utility infrastructure to serve it. The Project's only off-site infrastructure improvements would consist of tie-ins to the existing utility main-lines already serving the Project Site area. The Project would not require the construction of off-site infrastructure that would provide additional infrastructure capacity for other future development. It would not open inaccessible sites to new development.

Therefore, the Project would not spur additional growth and would not eliminate impediments to growth. Consequently, the Project would not foster indirect growth-inducing impacts.

5. Potential Secondary Effects

Section 15126.4(a)(1)(D) of the State CEQA Guidelines requires that, if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure be discussed, but in less detail than the significant effects of the proposed project. In the analyses of the Project's impacts in Chapter IV, *Environmental Impact Analysis*, of this Draft EIR, mitigation measures are identified in several environmental areas where the Project's impacts would potentially be significant. The potential secondary effects that could occur as a result of implementing the identified mitigation measures are discussed below. For the reasons stated below, it is concluded that the Project's mitigation measures would not result in significant secondary impacts.

a) Air Quality

As discussed further in Section IV.B, *Air Quality*, of this Draft EIR, Air Quality Mitigation Measure MM-AQ-1 provides truck specifications and logistics procedures to be implemented during the 1-day continuous concrete pour during the construction phase. This mitigation measure would reduce air quality emissions during the concrete pour without adding any new significant impacts to the physical environment that were not addressed in the Draft EIR.

b) Biological Resources

As discussed in the Initial Study prepared for the Project, located in Appendix A-2 of this Draft EIR, the removal of street trees due to implementation of the Project could potentially impact any nesting birds. Mitigation Measure MM-BIO-1 would require the

Project Applicant to retain a qualified biologist approved by the City to prepare a nesting bird survey if any construction activities occur in the nesting season (February 15 to August 31). The survey must be conducted within 72 hours prior to the start of construction. If any nests are identified, an appropriate buffer, as determined by the biological monitor, must be delineated, flagged, and avoided to the extent feasible until the qualified biological monitor has verified that the young have fledged or the nest has otherwise become inactive.

This mitigation measure requires specific procedures that provide for the surveying and protection of nesting bird species should they be encountered. The measure is site-specific, would not require the construction of new facilities and would not result in adverse secondary impacts within the Project Site or in the surrounding area.

c) Cultural Resources

As discussed further in Section IV.C, *Cultural Resources*, of this Draft EIR, Mitigation Measures CULT-MM-1 through CULT-MM-5 include measures to reduce potential impacts on cultural Resources. CULT-MM-1 through CULT-MM-4 address potential impacts to archaeological resources; and CULT-MM-5 addresses potential impacts pertaining to specifically the Zanja Madre.

These mitigation measures require specific construction procedures that provide for the monitoring of construction activity for potential resources, procedures for the protection and handling of resources should they be encountered, and final disposition of encountered resources. The mitigation measures are site-specific, would not require the construction of new facilities and would not result in adverse secondary impacts within the Project Site or in the surrounding area.

d) Hazards and Hazardous Materials

As discussed further in Section IV.G, *Hazards and Hazardous Materials*, Mitigation Measures HAZ-MM-1 and HAZ-MM-2 address impacts regarding the potential presence of hazardous materials and/or conditions on the Project Site. MM-HAZ-1 requires the Project Applicant to prepare a Soil Management Plan to establish procedures for appropriate handling, screening, and management of potentially impacted or impacted soils from historical operations that may be encountered at the Project Site during grading and excavation activities; and MM-HAZ- 2 includes procedures for an assessment of potential Underground Storage Tanks and removal of such tanks if they are present. These mitigation measures are site-specific, would not require new construction that was not previously analyzed under other relevant sections (e.g., construction traffic, air quality and noise impacts) and would not result in adverse secondary impacts within the Project Site or in the surrounding area.

e) Geology and Soils – Paleontological Resources

As discussed further in Section IV.E, *Geology and Soils – Paleontological Resources*, of this Draft EIR, Mitigation Measures GEOL-MM-1 through GEOL-MM-4 include measures to reduce potential impacts on paleontological resources during Project excavation.

These mitigation measures require specific procedures that would be implemented during construction, and which would provide for the monitoring of construction activity to identify potential resources, procedures for the protection and handling of resources should they be encountered, and final disposition of encountered resources. The mitigation measures are site-specific, would not require the construction of new facilities and would not result in adverse secondary impacts within the Project Site or in the surrounding area

f) Noise

As discussed further in Section IV.J, *Noise*, the Project would be required to implement mitigation measures NOISE-MM-1 through NOISE-MM-6 to reduce the effects of construction noise and vibration at off-site sensitive receptors. NOISE-MM-1 and NOISE-MM-2 require the use of noise barriers that would be incorporated into the Project's construction program as anticipated within the Draft EIR. NOISE-MM-3 requires that all construction equipment, fixed or mobile, be equipped with properly operating and maintained noise shielding and muffling devices, consistent with manufacturers' standards, that provide a minimum reduction of 8 dBA as compared to the same equipment without an installed muffler system. NOISE-MM-4 prohibits construction equipment generating high levels of vibration, such as large bulldozers and loaded trucks, from operating within 80 feet of the property lines of existing residential uses adjacent to the Project Site, and requires that rubber-tired equipment not exceeding 400 horsepower shall be used instead during demolition, grading, and excavation operations within 80 feet from sensitive receptor locations R1 and R2. NOISE-MM-5 requires the designation of a construction relations officer to serve as a liaison with the adjacent mixed-use developments to reduce vibration impacts, and NOISE-MM-6 requires posting at the Project Site of public information to help the public address concerns regarding noise violations. The implementation of these mitigation measures is intended to reduce noise and vibration impacts at the Project Site and at adjacent uses. No component of these mitigation measures would result in adverse secondary impacts.

g) Transportation and Traffic

As discussed further in Section IV.M, *Transportation and Traffic*, the Project would implement two mitigation measures to enhance traffic operations in the Project vicinity. TRAF-MM-1 would implement a Transportation Demand Management (TDM) Program to encourage the use of non-auto modes of transportation and reduce vehicle trips. This measure would be implemented primarily through the provision of on-site facilities and information programs, as well as financial support for off-site facilities such as bicycle facility improvements otherwise being implemented by the City. TRAF-MM-2 would provide funding for Transportation System Management (TSM) Improvements. The

funding would support upgrades to the signalization system and enhance the flow of traffic operations. These measures would help to reduce vehicle miles traveled and the flow of traffic through nearby intersections; thereby providing environmental benefits. Neither would require new construction activity. These mitigation measures would not result in adverse secondary impacts.

6. Effects Found Not to be Significant

Section 15128 of the State CEQA Guidelines requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Section 15128 further provides that such a statement may be contained in an attached copy of an Initial Study.

As discussed in Chapter I, *Introduction*, of this Draft EIR, an Initial Study was prepared for the Project and is included in Appendix A-2 of this Draft EIR. The Initial Study, which is organized by environmental topics, provides a detailed discussion of the reasons the City determined that certain possible effects of the Project would, or would not be, potentially significant and therefore would, or would not be, analyzed further in this Draft EIR. The discussion of the Project's potential impacts and reasons for the City determinations is provided in an Explanation of Checklist Determinations that addresses the Environmental Impact Questions included in Appendix G of the State CEQA Guidelines.

The Initial Study analyses is based on the Appendix G questions that were used by the City at the time the Project's Notice of Preparation (NOP) was distributed in December of 2017. Subsequent to the distribution of the NOP, the California Resources Agency updated the Appendix G questions in December 2018 for implementation in 2019. The revised questions are substantially consistent with the Questions used in the Project's Initial Study, and the conclusions therein regarding the topics to be addressed in an EIR would not be affected by use of the updated questions. Notwithstanding, added text is provided below to add clarification regarding updated Appendix G questions regarding utilities and wildfire.

As the Initial Study shows, the City determined that the Project would result in less than significant or no impacts related to the following environmental areas and, therefore, that these environmental areas would not require further analysis this Draft EIR: Agriculture and Forestry Resources; odors (Air Quality); Biological Resources; landslides, septic tanks or alternative wastewater disposal systems (Geology and Soils); private airstrip hazards, wildland fires (Hazards and Hazardous Materials); habitat conservation plans or natural community conservation plans (Land Use and Planning); Mineral Resources; airport land use plans, private airstrip noise exposure (Noise); the displacement of people or existing housing (Population and Housing); and Solid Waste (Utilities and Service Systems). The reasons supporting the City's the conclusions are discussed below.

a) Agriculture and Forest Resources

The Project Site is located in an urbanized area and is zoned [Q]R5-4D-O (High Density Residential), and is currently developed with commercial buildings and associated surface parking. The Project Site is not located within any category of farmland and is not under a Williamson Act Contract. In addition, consistent with the built, urbanized area surrounding the Project Site, the larger Project Site vicinity is zoned for light industrial, commercial, and residential, as well as open space uses. No forest land or land zoned for timberland production is present on-site or in the surrounding area. Development of the Project would not result in the conversion of farmland or forest land to non-agricultural or non-forest uses. As such, the Project would not impact agriculture and forest resources.

b) Air Quality

(1) Odors

Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. Odors are also associated with such uses as sewage treatment facilities and landfills. The Project would develop a mixed-use development, including residential and commercial uses, and would not introduce any major odor-producing uses that would have the potential to affect a substantial number of people. Odors associated with Project operation would be limited to those associated with on-site waste generation and disposal (e.g., trash cans, dumpsters) and occasional minor odors generated during food preparation activities. Thus, Project operation is not expected to create objectionable odors. Activities and materials associated with construction would be typical of construction projects of similar type and size. On-site trash receptacles would be covered and properly maintained in a manner that controls odors. Any odors that may be generated during construction of the Project would be localized and would not be sufficient to affect a substantial number of people or result in a nuisance as defined by SCAQMD Rule 402. Therefore, impacts with regard to odors would be less than significant.

c) Biological Resources

(1) Candidate, Sensitive, or Special-Status Species

The Project Site is located in the highly urbanized Downtown area and South Park area of the City, and is fully developed with commercial buildings and associated surface parking. The Project Site does not contain existing landscaping or trees. Furthermore, because of the urbanized nature of the Project Site and Project vicinity, the Project Site does not support habitat for candidate, sensitive, or special status species. Therefore, there would be no impacts to candidate, sensitive, or special status species.

(2) Riparian Habitat

The Project Site is located in the highly urbanized Downtown area and South Park area of the City, and is fully developed with commercial buildings and associated surface parking. The Project Site does not contain any riparian habitat or other sensitive natural communities as indicated in the City or regional plans or in regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (USFWS). Furthermore, the Project Site is not located in or adjacent to a Significant Ecological Area as defined by the City.³ Therefore, the Project would not have an impact on any riparian habitat or other sensitive natural community.

(3) Wetlands

The Project Site is located in the highly urbanized Downtown area and South Park area of the City, and is fully developed with commercial buildings and associated surface parking. The Project Site does not contain state or federally protected wetlands. Therefore, the Project would not have an impact on federally protected wetlands.

(4) Wildlife Movement/Corridor

The Project Site is located in the highly urbanized Downtown area and South Park area of the City, and is fully developed with commercial buildings and associated surface parking. Due to the highly urbanized nature of the Project Site and surrounding area, the lack of on-site trees and other landscaping, and the lack of any water body, the Project Site does not contain substantial habitat for native resident or migratory species, or native wildlife nursery sites. As further discussed in the Initial Study analysis, there are five street trees adjacent to the Project Site that would be replaced during implementation of the Project. Therefore, the Project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

However, the potential exists for protected bird species to be nesting in the street trees during Project construction. This Initial Study for the Project proposed a mitigation measure to avoid disturbance of any nesting birds, consistent with the provisions of the Migratory Bird Treaty Act of 1918 (MBTA), Mitigation Measure MM-BIO-1. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The USFWS administers permits to take migratory birds in accordance with the MBTA. However, given the regulatory requirements associated with the MBTA, the City requires that all projects comply with the MBTA by either avoiding grading activities during the nesting season (February 15 to August 15) or conducting a site survey for nesting birds prior to commencing grading activities. Mitigation Measure MM-BIO-1 will, ensure compliance with the MBTA. Adherence to the MBTA regulations would ensure that if construction occurs during the nesting season, appropriate measures

³ City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Final Environmental Impact Report, SCH #94701030, Figure BR-1B, Biological Resource Areas (Metro Geographical Area), January 19, 1995, http://cityplanning.lacity.org/HousingInitiatives/HousingElement/FrameworkEIR/GPF_DraftEIR/GPF_FEIR_DEIR2.18.pdf.

would be taken to avoid impacts to any nesting birds if found. With adherence to the mitigation measure and compliance with MBTA requirements, less than significant impacts would occur.

(5) Conflict with Local Policies or Ordinances

The Project Site is located in the highly urbanized Downtown area and South Park area of the City, and is fully developed with commercial buildings and associated surface parking. The Project Site does not contain existing landscaping or trees. However, four Indian Laurel fig (*Ficus microcarpa*) trees of approximately 40 feet in height and ranging in diameters at breast height (DBH) from 16- to 20-inches, and one pink trumpet tree (*Tabebuia impetiginosa*) of approximately 10 feet in height and 1-inch DBH, occur within the adjacent Olive Street right of way (ROW). Three *Koelreuteria* trees were recently planted along 11th Street as part of the MyFigueroa Streetscape Project. Existing street trees that may require replacement due to construction would be replaced under the auspices of a tree planting permit issued by the Urban Forestry Division (UFD) of the Los Angeles Bureau of Street Services, subject to review regarding the species, size and planting locations. The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

(6) Conflict with Conservation/Habitat Plans

The Project Site is located within a developed, urbanized area and does not provide habitat for any sensitive biological resources. The Project Site is not located within the boundaries of a habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. Therefore, the Project would not conflict with the provisions of any such conservation plan, and no impact would occur.

d) Geology and Soils

(1) Landslides

The Project Site is not located within a City-designated Hillside Grading Area, is not subject to the City's Hillside Ordinance, and is not located in a City-designated Landslide area.^{4,5} Furthermore, the Project Site is located in an urbanized area on relatively flat land, and is not located in proximity to any mountains or steep slopes. As such, there is no potential for landslides to occur on or near the Project Site. Therefore, the Project would not directly or indirectly expose people or structures to potential substantial adverse effects involving landslides and no impact would result.

⁴ California Geological Survey, Earthquake Zones of Required Investigation, Hollywood Quadrangle map, Revised Official Map, released November 6, 2014. http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/HOLLYWOOD_EZRIM.pdf. Accessed September 14, 2017.

⁵ City of Los Angeles General Plan Safety Element, adopted November 26, 1996, Exhibit C: Landslide Inventory & Hillside Areas, <http://cityplanning.lacity.org/cwd/gnlpln/safteyelt.pdf>. Accessed on January 16, 2017.

(2) Septic Tanks or Alternative Wastewater Disposal Systems

The Project Site is located in an urbanized area where wastewater infrastructure is currently in place. The Project would connect to the City's existing sewer system, and would not use septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

e) Hazards and Hazardous Materials

(1) Airstrips or Airport Proximity and Plans

The Project Site is not located in a designated Airport Hazard Zone.⁶ Furthermore, the Project Site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. The two nearest airports are the Hawthorne Municipal Airport and Los Angeles International Airport located approximately 9 miles and 10 miles to the southwest, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project would not result in an airport-related safety hazard for people residing or working in the Project vicinity.

(2) Wildfires

The Project Site is located in a highly urbanized area. No wildlands are present on the Project Site or in the surrounding area. Furthermore, the Project Site is not located within a City-designated wildfire hazard area. Therefore, the Project would not expose people or structures to direct or indirect significant risk involving wildland fires.

f) Land Use and Planning

(1) Physically Divide an Established Community

The Project Site is located within the boundaries of the Community Plan Area, in a highly urbanized area of Downtown and the South Park community of the City, and is improved with five commercial buildings and associated surface parking. The Project would redevelop an already developed site in conformance with the existing General Plan land use designation and zoning of the Project Site. Furthermore, while the Project would result in minor changes to the way that vehicles access the Project Site, it would not close or re-route existing streets, and traffic in the surrounding community would continue to utilize the same circulation facilities and patterns as occur presently. Furthermore, the ground and mezzanine levels of the Project would include neighborhood commercial uses and improvements to Olive Street and 11th Street sidewalks that would encourage and

⁶ City of Los Angeles Department of City Planning, Zoning Information and Mapping Access System (ZIMAS), Parcel Profile Report: 1045 S. Olive Street. Generated January 3, 2017.

increase pedestrian activity and improve pedestrian connectivity in the area. Therefore, the Project would not physically divide an established community.

(2) Conflict with Applicable Habitat Conservation Plans or Natural Community Conservation Plans

The Project Site is located in the highly urbanized Downtown area and South Park community of the City, is currently developed with five commercial buildings and associated surface parking, is surrounded on all sides by urban development, and lacks trees or other landscaping. Furthermore, the Project Site is not located within or adjacent to a Sensitive Ecological Area (SEA) as defined by the City or County of Los Angeles, or within an area subject to a habitat conservation plan or natural community conservation plan. Therefore, the Project would not conflict with the provisions of an applicable habitat conservation plan or natural community conservation plan, no mitigation measures are required.

g) Mineral Resources

The Project Site is not classified by the City as containing significant mineral deposits. Furthermore, the Project Site and its environs are not designated as an existing Aggregate Production Area by the State of California or the U.S. Geological Survey. The Project Site is fully developed with urban uses and, has not been the site of mineral resource extraction in the past, and rather than being designated for resource extraction, the Project Site is designated for High Density Residential use by the City of Los Angeles General Plan. Therefore, Project implementation would not result in the loss of availability of a known mineral resource of value to the region and residents of the State, nor of a locally important mineral resource recovery site. No impacts to mineral resources would occur and no mitigation measures are required.

h) Noise

(1) Airport or Private Airstrip Noise

The Project Site is not located within an airport land use plan, within two miles of a public use airport, or within the vicinity of a private airstrip. The two nearest airports are the Hawthorne Municipal Airport and the Los Angeles International Airport, which are located approximately 9 and 10 miles southwest of the Project Site, respectively. The nearest private airport or airstrip is the Goodyear Blimp Base Airport in the City of Carson, approximately 13 miles south of the Project Site. Therefore, the Project would not expose its future residents or residents within the Project vicinity to excessive noise levels from air traffic.

i) Population and Housing

(1) Displacement of Housing and People

The Project would replace the existing 35,651 square feet of on-site commercial uses with up to 794 residential units and 12,504 square feet of commercial uses. No dwelling units are currently located on the Project Site. Thus, the Project would not displace existing housing or people occupying other types of structures for temporary shelter and would not necessitate the construction of replacement housing elsewhere. Therefore, no impacts would occur.

j) Solid Waste

(1) Capacity of a Landfill for the Project's Solid Waste Disposal Needs, Consistency with State and Local Solid Waste Standards, and Attainment of Solid Waste Reduction Goals

Solid waste management in the City of Los Angeles involves both public and private refuse collection services as well as public and private operation of solid waste transfer, resource recovery, and disposal facilities. The City of Los Angeles Bureau of Sanitation (LASAN) is responsible for developing strategies to manage solid waste generation and disposal in the City. LASAN collects solid waste generated primarily by single-family dwellings, small multi-family dwellings, and public facilities. Private hauling companies collect solid waste generated primarily from large multi-family residential, commercial, and industrial properties. The City does not own or operate any landfill facilities, and the majority of its solid waste is disposed of at in-County landfills.

The remaining in-County disposal capacity for the County's Class III landfills is estimated at approximately 114.4 million tons as of December 2015, the most recent data available.⁷ The average daily disposal capacity is 28,549 tons per day and the average daily disposal rate is 15,298 tons per day, leaving a residual daily capacity of 13,251 tons per day. Waste from the City of Los Angeles is disposed primarily at the Sunshine Canyon and Chiquita landfill sites. Of the 114.4 million tons of remaining capacity within the County, 72.6 million tons or approximately 54 percent, is located at the Sunshine Canyon landfill, which has a remaining life of 22 years.

In addition to in-County landfills, out-of-County disposal facilities may also be available to the City. Aggressive waste reduction and diversion programs on a Countywide level have helped reduce disposal levels at the County's landfills, and based on the Los Angeles County Integrated Waste Management Plan (ColWMP), the County anticipates that future Class III disposal needs can be adequately met through 2030 through a combination of

⁷ County of Los Angeles Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan: 2015 Annual Report. December 2016. Appendix E-2, Table 1.

landfill expansion, waste diversion at the source, out-of-County landfills, and other practices.⁸

As reported in the ColWMP: 2015 Annual Report, construction waste, demolition debris and exported soil (if not reused at another site) is disposed of at one of the unclassified inert landfills available to the City of Los Angeles, typically the Azusa Land Reclamation Facility, which has an estimated remaining capacity of approximately 57.56 million tons or 46.09 million cubic yards (cy).⁹ Further, the average disposal rate was 264,000 tons per year (tpy) (846 tons per day [tpd]) in 2015. The estimated remaining life is 30 years. In 2015, other inert debris facilities that process inert waste and other construction and demolition waste collectively handled nearly approximately 2.4 million tons.

Waste disposal in the City is also carried out under the auspices of the City of Los Angeles Solid Waste Integrated Resources Plan (SWIRP), most commonly known as the City's Zero Waste Plan. This plan identifies a long term plan through 2030 for the City's solid waste programs, policies and environmental infrastructure. The SWIRP aims for the City to achieve a goal of 90 percent diversion by 2025. This targeted diversion rate would be implemented through an enhancement of existing policies and programs, implementation of new policies and programs, and the development of future facilities.¹⁰

(a) *Construction Impacts*

Project construction would require demolition of the existing on-site commercial buildings, earthwork (grading and excavation including soil export), and the construction of the new mixed-use residential building on the Project Site. Each of these activities would generate construction waste including, but not limited to, asphalt, wood, paper, glass, plastic, metals, and soil.

As calculated in the Initial Study, development of the Project would generate an estimated 2,948 tons of building construction waste, 1,640 tons of demolition debris, 86,670 tons of soil export and 62 tons of asphalt removal for a total of 91,321 tons.

Construction and demolition (C&D) materials would be conveyed pursuant to the City's Waste Hauler Permit Program (Ordinance No. 181,519), effective January 1, 2011. Under this regulation, all private waste haulers collecting solid waste within the City, including C&D waste, are required to obtain Assembly Bill (AB) 939 Compliance Permits and to

⁸ County of Los Angeles Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan: 2015 Annual Report. December 2016. Appendix E-2, Table 1 and Table 2.

⁹ County of Los Angeles Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan: 2015 Annual Report. December 2016. Page 32 and Appendix E-2, Table 1 and Table 2.

¹⁰ Solid Waste Integrated Resources Plan, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwswirp.jsessionid=AgloE85QVAFQnxqPpAdrn65Tc-m75Je2g-nC1ILEy8UCT1VM7ILO!-395322140!-1871668233?_afLoop=11115782988512864&_afWindowMode=0&_afWindowId=null#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D11115782988512864%26_afWindowMode%3D0%26_adf.ctri-state%3Dgm4tpb8fc_4. Accessed January 19, 2017.

transport C&D waste to City-certified C&D processing facilities. These facilities process received materials for reuse and have recycling rates that vary from 70 percent to 87 percent, thus exceeding the 70 percent reclamation standard.¹¹

As of 2014, Azusa Land Reclamation, the only permitted Inert Waste Landfill in the County with a full solid waste facility permit, had a remaining capacity of 57.56 million tons. Given the remaining permitted capacity and the average disposal rate of 846 tpd in 2015, this inert waste landfill has a remaining life of 30 years. In 2015, other inert debris facilities that process inert waste and other C&D waste collectively handled nearly 2.36 million tons.¹² On a daily basis 7,555 tpd were disposed of, in contrast to an available capacity of 31,098 tpd.

As calculated in the Initial Study, the total amount of Project C&D debris is estimated to be 91,331 tons. If this were amount were to be reduced by 70 percent to reflect the estimated reclamation standard, the net debris requiring disposal would be 27,399 tons. There is substantial capacity available to accommodate the Project's C&D wastes for the foreseeable future.

Disposal and recycling of the construction debris would be required to comply with all Federal, State, and local regulations inclusive of applicable standards applying to individual development project and those establishing solid waste reduction goals: e.g., hiring haulers for the disposal construction wastes that have AB 939 Compliance Permits and to transport C&D waste to City-certified C&D processing facilities. Therefore, the Project would not cause any significant impacts from conflicting with statutes or regulations related to solid waste. Based on the above, a less than significant impact regarding solid waste would occur.

(b) Operational Impacts

The Project's estimated net increase in operational solid waste generation is calculated in the Initial Study as approximately 10,034 pounds per day (5.0 tpd), or 1,831 tpy. These amounts represent total net waste generation over existing conditions, without consideration of diversion/reclamation, and would be substantially reduced under current and improving reclamation rates. As noted above, the SWIRP sets a goal for the City to achieve a 90 percent diversion rate by 2025 through an enhancement of existing policies and programs, implementation of new policies and programs, and the development of future facilities.

¹¹ LA Sanitation, Waste Hauler Permit Program, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-c/s-lsh-wwd-s-c-whp?_afLoop=13533789757387876&_afWindowMode=0&_afWindowId=null#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D13533789757387876%26_afWindowMode%3D0%26_adf.ctrl-state%3Dsbifk38qh_131; updated July 1, 2017. Accessed August 9, 2017

¹² County of Los Angeles Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan: 2015 Annual Report. December 2016. Page 32 and Appendix E-2, Table 1 and Table 2.

As described above, the Project's net daily waste generation would be 5.0 tpd without accounting for diversion; residual disposal capacity is 13,251 tpd and the total remaining landfill capacity is 114.4 million tons. Therefore, the Project's net daily waste generation would represent 0.04 percent of the residual daily capacity of 13,251 tpd. The annual net waste generated, prior to diversion, of 1,831 tpy would represent 0.0016 percent of the remaining 114.4 million-ton capacity. If the City were to meet its diversion goal of 90 percent by 2025, the disposal rate would be 183 tpy, or approximately 0.00016 percent of the remaining 114.4 million-ton capacity.

As described above, according to the ColWMP 2015 Annual Report the County anticipates that future Class III disposal needs can be adequately met through the 2030 planning horizon period through a combination of landfill expansion, waste diversion at the source, out-of-County landfills, and other practices. The Sunshine Canyon landfill, which accommodates most of the City's waste disposal, has a remaining life of 22 years.

Based on the above, Project-generated waste during operations would not exceed the estimated landfill capacity requirements addressed for the 15-year planning period ending in 2030, or alter the ability of the County to address landfill needs via existing capacity and other options for increasing capacity.

Further, the Project would generate standard household wastes and would generate no hazardous wastes that would require special handling. Disposal of wastes would be handled on-site pursuant to City requirements that support reclamation and recycling of wastes including the provision of recycling areas pursuant to the City's Space Allocation Ordinance, which requires that developments include a recycling area or room of specified size on the Project Site; and the Project's commercial uses would also be subject to the provisions of AB 1826, which requires businesses to recycle their organic waste. Therefore, impacts on solid waste disposal from Project operations would be less than significant.

Based on the above analysis, the City has concluded that the Project would have no potential impacts, or less than significant impacts, on solid waste disposal due to both construction and operations, and that no further analysis of this topic in this Draft EIR was required.

(2) Compliance with Solid Waste Management and Reduction Statutes and Regulations

Solid waste management in the State is primarily guided by the California Integrated Waste Management Act of 1989 (AB 939) which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. AB 939 establishes an integrated waste management hierarchy consisting of (in order of priority): 1) source reduction; 2) recycling and composting; and 3) environmentally safe transformation and land disposal. Additionally, the City is currently implementing its "Zero-Waste-to-Landfill" goal to achieve zero waste to landfills by 2025 to enhance the SWIRP Process. Recycling efforts in the

City in accordance with AB 939 achieved a solid waste diversion rate of 76.4 percent in 2011, the most recent year data is available.

The Project would be consistent with the applicable management reduction statutes and regulations associated with solid waste. Specifically, the Project would provide adequate storage areas for recyclable wastes, in accordance with the City's Space Allocation Ordinance (Ordinance No. 171,687), which requires that developments include a recycling area or room of specified size on the Project Site. The Project's commercial uses would also be subject to the provisions of AB 1826, which requires businesses to recycle their organic waste. Further, the Project would comply with the City's Construction and Demolition Waste Recycling Ordinance, AB 939. Since the Project would comply with federal, State, and local statutes and regulations related to solid waste, a less than significant impact would occur and no mitigation measures would be required.

k) Other Utilities

The 2019 Appendix G Update Question XIX.a), Utilities and Service Systems, was revised to read as follows:

Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The availability of physical facilities to address all but one of the cited utilities except for "telecommunications" has been evaluated Chapter IV. *Environmental Impacts Analysis*, of this Draft EIR. New or expanded water facilities are evaluated in Section IV.O.2, *Water Supply*; new or expanded wastewater facilities are addressed in Section IV.O.1, *Wastewater*; new or expanded stormwater drainage facilities are addressed in Section IV.H, *Hydrology and Water Quality*, and new or expanded electric power and natural gas facilities are addressed in Section IV.D, *Energy*.

"Telecommunications" was added to the list of utilities in the 2019 Appendix G Update, and therefore was not considered in the Project's Initial Study." However, it can be noted here that telecommunication services are available to serve the Project Site. The Project Site is currently developed with retail and light manufacturing uses and is currently served by telephone services. Charter communications provides cable services within the Project limits, with underground service lines located throughout the properties adjacent to the Project Site and serving the entire extent of the block in which the Project is located. Charter communications has provided a "will serve" letter for the Project.¹³

Construction impacts associated with the installation of new telecommunication infrastructure would primarily involve trenching in order to place the lines below ground

¹³ Charter Communications; Al Ruiz, Construction Manager Contact, "Will Serve Letter," October 30, 2017. The Telecommunications Will Serve Letter is included in the Project's Utility Report, Appendix P-1, of this Draft EIR.

surface. When considering impacts resulting from the installation of any required telecommunications infrastructure, all impacts are of a relatively short duration and would cease to occur when installation is complete. Installation of new telecommunications infrastructure would be limited to on-site telecommunications distribution and minor off-site work associated with connections to the public system. Therefore, impacts regarding the provision of telecommunications services would not be significant and further analysis is not required.

I) Wildfire

The 2019 Appendix G update includes a new Question XX, Wildfire, which reads as follows:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project ...?

The Appendix G Question proceeds to describe additional considerations for areas meeting the test of falling within state responsibility areas or lands classified as very high fire hazard severity zones.

Potential Project impacts regarding wildfire hazards have been addressed in the Initial Study, as summarized above, under the topic of Hazards and Hazardous Materials. As described therein, the Project Site is located in a highly urbanized area and is not located within a City-designated wildfire hazard area.¹⁴ As further response to the new Appendix G question, it can be further noted that the Project is not located within a State Responsibility Area or an area designated as a Very High Fire Hazard Severity Zone.¹⁵ Therefore, no impacts would occur in regards to location within a wildfire hazard area; and additional analysis to address the considerations raised under Appendix G, Question XX, is not needed.

¹⁴ City of Los Angeles, Department of City Planning, Safety Element of the Los Angeles City General Plan, adopted November 26, 1996, Exhibit D – Selected Wildfire Hazard Areas in the City of Los Angeles, <http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf>. Accessed January 16, 2017.

¹⁵ CalFire, Fire and Resource Assessment Program (FRAP); FHSZ Viewer, CalFire, Fire and Resource Assessment Program (FRAP); FHSZ Viewer, <http://egis.fire.ca.gov/FHSZ/>. Accessed April 9, 2019.

Chapter VII

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Chapter VIII

List of EIR Preparers and Organizations and Persons Contacted

1. Lead Agency

City of Los Angeles

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Los Angeles, CA 90012

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- Alejandro Huerta, City Planner

2. Environmental Impact Report Preparation

ESA

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- Jay Ziff, Director, Project Director
- Gary Schalman, Managing Associate III, Project Manager
- Alan Sako, Senior Managing Associate II
- Jessie Barkley, Senior Managing Associate
- Jessie Fan, Senior Associate II
- Christine Abraham, Senior Managing Associate
- Lorena Christman, Senior Technical Associate
- Marissa Mathias, Associate II
- Sara Dietler, Managing Associate
- Kyle Kim, Senior Associate I
- Tim Witwer, Associate III
- Elbert Hsiung, Senior Associate I
- Ian Hillway, Publications Services Manager
- Gary Gick, Senior Word Processor
- Denise Kaneshiro, Senior Graphic Designer
- Stephan Geissler, Managing Associate

Architect

ODA-Architecture, P.C.

250 Park Avenue S., Floor 3
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- Eran Chan, AIA, Founder and Executive Director
- Olivera Grk, AIA, Project Director

Transportation Consultant

The Mobility Group

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Irvine, CA 92612

- Michael Bates, Principal
- Iain Conway, Sr. Transportation Planner
- Matthew L. Simmons, Sr. Traffic Engineer

Civil Engineer and Hydrology

David Evans & Associates

201 S. Figueroa Street, Suite 240
Los Angeles, CA 90012

- Alex Moore, Principal Planner, Project Manager
- Taylor Miller, Planner

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Geodesign, Inc.

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Anaheim, CA 92806

- Christopher Zadoorian, Principal Engineer

Hazardous Materials

Leighton & Associates

17781 Cowan
Irvine, CA 92614

- Kevin Bryan, Principal
- Meredith Church, Sr. Project Geologist

Arborist Street Tree Report

Evergreen Arborist Consultants, Inc.

5670 Wilshire Boulevard, Suite 1800
Los Angeles, CA 90035

- Michael Green, Certified Arborist

3. Agencies Consulted

Los Angeles Department of Water and Power (Water Supply Assessment)

Water Resources Development
111 N. Hope Street, Room 1460
Los Angeles, CA 90012

- David R. Pettijohn, Director of Water Resources
- Richard F. Harasick, Sr. Assistant General Manager for Water Systems
- Andrei Tcharssov, Civil Engineering Associate

Los Angeles Department of Water and Power (Water Distribution and Fire Flow)

Water Distribution Engineering
111 N. Hope Street, Room 1425
Los Angeles, CA 90012

- Denise R. Gardiner, P.E., Engineer of Central District
- Jesus M. Gonzalez, P.E., Engineer of Central District
- Aida Fitton, Civil Engineer Associate

Los Angeles Fire Department (Fire Flow Availability)

Fire Prevention and Public Safety Bureau
Fire Development Services
201 N. Figueroa Street, Suite 300
Los Angeles, CA 90012

- George Suchand, Inspector II, Hydrants and Access

Los Angeles Department of Public Works, Bureau of Engineering (Sewer Capacity Availability Review)

Central District
1149 S. Broadway, Suite 700
Los Angeles, CA 90015

- Michael Castillo, Civil Engineering Associate

Bureau of Sanitation (Sewer Capacity Availability Request)

- Albert Lew

Los Angeles Department of Transportation

Development Services Division
100 South Main Street, 9th Floor
Los Angeles, CA 90012

- Wes Pringle, Transportation Engineer

Los Angeles Fire Department

Bureau of Fire Prevention and Public Safety
201 N. Figueroa Street, Suite 300
Los Angeles CA 90012

- Kristin Crowley, Fire Marshal

Los Angeles Police Department

Community Relationship Division
100 W. First Street, Suite 250
Los Angeles, CA 90012

- Captain Al Neal, Commanding Officer

Los Angeles Unified School District

Office of Environmental Health and Safety
333 S. Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

- Rena Perez, Director, Master Planning and Demographics

Los Angeles Public Library

Business Office
630 West 5th Street
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- Thomas Jung, Senior Management Analyst I

Los Angeles Department of Recreation and Parks

Planning, Maintenance, and Construction Branch
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- Daryl Ford, Senior Management Analyst I, Planning, Maintenance, and Construction Branch
- Michael A. Shull, General Manager