G-2 Environmental Leadership Development Project Application and Certification

1. Notice of Completion

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

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

SCH # 2015111073

Project Title: 6220 West Yucca Project

Lead Agency: City of Los Angeles | Contact Person: William Lamborn

Mailing Address: 200 N. Spring Street, Room 750 | Phone: (213) 978-1470

City: Los Angeles | Zip: 90012 | County: Los Angeles

Project Location: County: Los Angeles | City/Nearest Community: Los Angeles/Hollywood

Cross Streets: West Yucca Street and Argyle Avenue | Zip Code: 90028

Longitude/Latitude (degrees, minutes and seconds): 34 ° 06 ′ 13 ″ N / 118 ° 19 ′ 29 ″ W | Total Acres: 1.16

Assessor's Parcel No.: Multiple including 5546-031-027 | Section: | Twp.: | Range: | Base:

Within 2 Miles: State Hwy #: US-101, | Waterways:

Airports: | Railways: Metro Red Line | Schools: Cheremoya; J. Le Conte

Document Type:

CEQA: ☐ NOP ☐ Draft EIR | NEPA: ☐ NOI | Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR | ☐ EA | ☐ Final Document
☐ Neg Dec (Prior SCH No.) | ☐ Draft EIS | ☒ Other: AB 900 application
☐ Mit Neg Dec Other: | ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: AB 900

Development Type:

☒ Residential: Units 210 Acres
☐ Office: Sq.ft. Acres Employees
☒ Commercial: Sq.ft. 12,500 Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD

☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☒ Other: Hotel: 136 rooms

Project Issues Discussed in Document:

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

Present Land Use/Zoning/General Plan Designation:

Regional Center Commercial/C4-2D-SN, R4-2D, and [Q]R3-1XL

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

Riley Realty, L.P. (the Applicant) proposes to redevelop an approximately 1.16-acre (net area) property on the south side of West Yucca Street between Argyle Avenue and Vista Del Mar Avenue, generally referenced as 6220 West Yucca Street (project site), with a mixed-use residential, hotel, and commercial/restaurant project (the project). The project would consist of two buildings, Buildings 1 and 2. Building 1 contains a mix of residential, hotel and commercial/restaurant uses, and Building 2 contains only residential uses. Each building would provide parking for its proposed uses. Overall, the project would include approximately 316,948 net square feet with 210 residential units, 136 hotel rooms, and 12,500 square feet of commercial/ restaurant space.

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

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

S Air Resources Board
_____ Boating & Waterways, Department of
_____ California Emergency Management Agency
_____ California Highway Patrol
_____ Caltrans District # _____
_____ Caltrans Division of Aeronautics
_____ Caltrans Planning
_____ Central Valley Flood Protection Board
_____ Coachella Valley Mtns. Conservancy
_____ Coastal Commission
_____ Colorado River Board
_____ Conservation, Department of
_____ Corrections, Department of
_____ Delta Protection Commission
_____ Education, Department of
_____ Energy Commission
_____ Fish & Game Region # _____
_____ Food & Agriculture, Department of
_____ Forestry and Fire Protection, Department of
_____ General Services, Department of
_____ Health Services, Department of
_____ Housing & Community Development
_____ Native American Heritage Commission
_____ Office of Historic Preservation
_____ Office of Public School Construction
_____ Parks & Recreation, Department of
_____ Pesticide Regulation, Department of
_____ Public Utilities Commission
_____ Regional WQCB # _____
_____ Resources Agency
_____ Resources Recycling and Recovery, Department of
_____ S.F. Bay Conservation & Development Comm.
_____ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
_____ San Joaquin River Conservancy
_____ Santa Monica Mtns. Conservancy
_____ State Lands Commission
_____ SWRCB: Clean Water Grants
_____ SWRCB: Water Quality
_____ SWRCB: Water Rights
_____ Tahoe Regional Planning Agency
_____ Toxic Substances Control, Department of
_____ Water Resources, Department of

_____ Other: _____
_____ Other: _____

Local Public Review Period (to be filled in by lead agency)

Starting Date _____ Ending Date _____

Lead Agency (Complete if applicable):

Consulting Firm: ESA PCR
Address: 2121 Alton Parkway Suite 100
City/State/Zip: Irvine, CA 92606
Contact: Michael Harden
Phone: (949) 753-7001

Applicant: Riley Realty, L.P.
Address: 11620 Wilshire Boulevard, Suite 1150
City/State/Zip: Los Angeles, CA 90025
Phone: (310) 312-8020

Signature of Lead Agency Representative: _____ **Date:** _____

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

2. Environmental Leadership Development Project (ELDP) Application

Application for Environmental Leadership Development Project

Riley Realty, L.P.

6220 West Yucca Street, Los Angeles, California 90028

April 2017



Application for Environmental Leadership Development Project

Project Title: Yucca Argyle

Project Applicant: Riley Realty, L.P.

Project Location: Los Angeles, California

Project Proposal

Riley Realty, L.P. (the Applicant) proposes to redevelop an approximately 1.16-acre (net area) property on the south side of West Yucca Street between Argyle Avenue and Vista Del Mar Avenue, generally referenced as 6220 West Yucca Street (project site), with a mixed-use residential, hotel, and commercial/restaurant project (the project). The property is located within the Hollywood community of the City of Los Angeles, and is currently improved with one single-family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas, all of which would be demolished and removed to allow development of the project. Overall, there are a total of 44 residential units currently on the project site.

The project would consist of two buildings, Buildings 1 and 2. Building 1 contains a mix of residential, hotel and commercial/restaurant uses, and Building 2 contains only residential uses. Each building would provide parking for its proposed uses. Overall, the project would include approximately 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors and shafts) within 210 multi-family residential units, approximately 57,740 net square-feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and approximately 12,500 square feet of commercial/restaurant uses. The total development would include approximately 316,948 net square feet of residential, hotel and commercial/restaurant uses for purposes of floor area calculations resulting in a floor-area ratio (FAR) of 6.3:1 averaged across the site. Parking for all proposed uses in Building 1 would be provided in 436 parking spaces within a six-level parking structure housed within the podium structure of Building 1. Parking for Building 2 would be provided in a two-level podium structure within the ground level and one subterranean level. The parking structure within Building 2 would include 23 parking spaces for residential uses.

Building 1 at the southeast corner of Yucca Street and Argyle Avenue would occupy the majority of the project site and include a six-level podium structure, which would include: two fully subterranean levels (P3 and P2 Levels); two semi-subterranean levels (P1 and L1 Levels – due to site's sloping topography); and two entirely above ground levels (L2 and L3 Levels). Atop Level 3 (the highest podium level), Building 1 would include Levels 4 through 20. Thus, Building 1 would be up to approximately 253 feet tall as measured from the P1 level along Argyle Avenue, the lowest surface point. Level 1 is considered herein as the Ground Level as it mostly fronts Yucca Street. From Yucca Street, Building 1 would be 20 stories tall. Building 1 would include a total of approximately 12,500 square feet of commercial/restaurant uses comprising 1,400 square feet of restaurant space at the corner of Argyle Avenue and Yucca Street, a ground-level 3,270 square foot restaurant space, a ground-level 3,450 square foot commercial space, and a

4,380 square foot restaurant/bar with outdoor dining on Level 4. Building 1 would also include approximately 57,740 net square feet of hotel floor area, which includes approximately 4,600 square feet of meeting space and 4,000 square feet back of house space on Level 1. There would be 136 hotel rooms located between Level 5 and Level 8 of Building 1. The hotel would include 116 rooms ranging from 390 to 555 square feet and 20 suites ranging from 615 to 745 square feet in size. Building 1 would also include 197 residential units, representing approximately 185,700 net square feet of residential space located within Level 4 and Levels 9 through 20. Building 1 would include 99 one-bedroom units, 88 two-bedroom units, and 10 suites. Four (4) suites would be located within Level 19 and the remaining six (6) suites would be located within Level 20. The one-bedroom units would range between 660 and 740 square feet, with the two-bedroom units ranging between 1,000 and 1,440 square feet. The suites would range between 1,130 square feet and 1,860 square feet.

Building 2, located at the southwest corner of Yucca Street and Vista Del Mar Avenue, would include three residential levels over a 2-story podium parking structure, which would include one subterranean parking level (P1 Level) and one ground parking level. Thus, Building 2 would be 4-stories above ground. Building 2 would include a lobby space and an enclosed trash recycling area on the Ground Level of the podium structure, in addition to residential parking. Four (4) residential flats and approximately 1,100 square feet of amenity space would occur on Level 2; five (5) residential units would occur on Level 3; and four (4) residential units would be on Level 4. Building 2 would include a total of five (5) one-bedroom units and eight (8) 2-bedroom units totaling approximately 12,050 square feet of residential unit space. The one-bedroom units would be approximately 700 square feet and the two-bedroom units would range between approximately 1,050 and 1,060 square feet.

Building 1 would include 7,350 square feet of private balconies. Building 2 would include amenity space on Level 2, including 250 square feet of private balconies. Building 1 would include an approximate 1,320 square-foot spa facility for hotel guests only on Level 4. The project would also include shared amenities between Building 1 and Building 2, including an approximate 2,530 square-foot gym, a 4,380 square-foot restaurant/bar with outdoor seating, a pool and spa deck, and a 10,770 square-foot podium courtyard on Level 4 to be shared by both hotel guests and residents. The courtyard would be equipped with lounge seats, gas fire pit, BBQ, and dining tables and chairs. Building 1 would further include a 3,520 square-foot pool/roof garden with a 920 square-foot bar on Level 20. Typically, pools would open from 6 am to approximately 11 pm.

The exterior boundaries of the project site along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue would include a streetscape design that would allow pedestrians, café tables, parkway planters, and bike parking as well as access to the porte-cochère. All of the open spaces areas would have extensive landscaping and well-detailed hardscape. Street trees would be planted along Yucca Street, Argyle Avenue and Vista Del Mar. The landscaping would be visible along the project edges and contribute positively to the appearance of the project as seen by passersbys on nearby roadways/sidewalks, and from higher elevations.

Project Site

The project site is located on the south side of West Yucca Street between Argyle Avenue and North Vista Del Mar Avenue (addresses: 1756, 1760 North Argyle Avenue; 6210-6224 West Yucca Street; and 1765, 1771, 1777, and 1779 North Vista Del Mar Avenue) in the Hollywood community of the City of Los Angeles, approximately five miles northwest of Downtown Los Angeles. The project site is bounded by Yucca Street, the Argyle Hotel Project construction site, and 3-story residential lofts to the north; North Vista Del Mar Avenue and 1- and 2-story single-family residences and duplexes to the east; vacant land (former Little Country Church of Hollywood) and 1- and 2-story single-family residences and duplexes followed by a 5-story mixed-use residential and commercial development to the south; and Argyle Avenue and commercial uses to the west.

The project vicinity is highly urbanized and generally built-out. The local vicinity is part of the active regional center of Hollywood with a mix of commercial, studio/production, office, entertainment, and residential uses. The project site is well served by a network of regional transportation facilities. Various public transit stops operated by the Los Angeles County Metropolitan Transportation Authority (Metro) are located in close proximity to the project site. The nearest Metro Red Line station at Hollywood Boulevard/Vine Street, is located approximately 0.13 miles southwest of the project site. The Hollywood Freeway (US Route 101) is approximately 200 feet north of the project site; Interstate 10 is approximately five miles to the south; Interstate 110 is approximately five miles to the southeast; Interstate 5 is approximately five miles to the east; State Route 134 is approximately five miles to the north; and Interstate 405 is approximately eight miles to the southwest. There are a number of historical resources located in the project vicinity, including the Capitol Records building to the west of the project site along Yucca Street, the vacant site of the former Little Country Church of Hollywood immediately south of the project site, and other resources located within the Vista Del Mar Avenue/Carlos Historic District.

The approximate 1.16-acre project site is improved with one single-family residence, one duplex and a studio apartment, and three, two-story apartment buildings (44 existing multi-family/apartment units total) and associated carports and paved surface parking areas. The three two-story apartment buildings located along Yucca Street have carport parking at the rear with driveway access from Yucca Street, as well as access to a separate fenced surface parking lot at the corner of Yucca Street and Vista Del Mar Avenue. The 3,118 square-foot apartment building on the corner of Yucca Street and Argyle Avenue includes eight (8) residential units. The two, 6,236 square-foot apartment buildings are located further to the east along Yucca Street and include 16 residential units each. The single-family residence and duplex with a detached garage and studio apartment over the garage are located on the project site and front on Vista Del Mar Avenue. Just south of the fenced surface parking lot on Vista Del Mar Avenue, is a 1,367 square-foot single-family residence built in 1920 (1771 North Vista Del Mar Avenue). Immediately adjacent and further to the south is a 2,942 square-foot duplex built in 1918 (1765 North Vista Del Mar Avenue) (a former single-family residence). Above the duplex's detached garage is an approximate 500 square foot studio apartment. The project site has been graded and is generally

flat, with the bordering Vista Del Mar Avenue and Argyle streets having topography that gently slopes downward from the north at Yucca Street to the south towards Carlos Avenue.

CONSISTENCY WITH STATUTORY REQUIREMENTS FOR CEQA STREAMLINING

This application was prepared in accordance with the Governor's Guidelines for Streamlining Judicial Review under the California Environmental Quality Act (CEQA), which is provided on the Governor's Office of Planning and Research Website (http://opr.ca.gov/s californiajobs.php).

The following information (in addition to all exhibits) is submitted to establish that the project satisfies the statutory requirements for CEQA streamlining as further informed by the criteria set forth in the Governor's Guidelines under California Public Resources Code Section 21178 et seq.

Information to show the project is residential, retail, commercial, sports, cultural, entertainment, or recreational in nature.

The project is a mixed-use development that is both residential and commercial in nature, located on property zoned Regional Center Commercial and Medium Residential. As previously stated, the project would include 210 multi-family residential units, 136 hotel rooms, and approximately 12,500 square feet of commercial/restaurant uses.

The residential space, consisting of 210 multi-family apartment units, distributed throughout the two buildings. Building 1 would include 99 one-bedroom units, 88 two-bedroom units, and 10 suites. Building 2 would include a total of five (5) one-bedroom units and eight (8) 2-bedroom units. The Applicant proposes various amenities, outdoor open spaces, and landscape treatments. Building 1 would include private balconies, a spa facility for hotel guests, a pool/roof garden, and a bar on Level 20. Shared amenities between Building 1 and Building 2 include a gym, restaurant/bar with outdoor seating, a pool and spa deck, and a courtyard with lounge seats, gas fire pit, BBQ, and dining tables and chairs.

The exterior boundaries of the project site along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue would include a streetscape design that would allow pedestrians, café tables, parkway planters, and bike parking as well as access to the porte-cochère. All of the open spaces areas would have extensive landscaping and well-detailed hardscape. Street trees would be planted along Yucca Street, Argyle Avenue and Vista Del Mar. The landscaping would be visible along the project edges and contribute positively to the appearance of the project as seen by passersbys on nearby roadways/sidewalks, and from higher elevations.

The commercial space, only present in Building 1, would consist of approximately 12,500 square feet of commercial/restaurant uses and 57,740 net square feet (or approximately 80,335 gross square feet) of hotel use with 136 hotel rooms and includes approximately 4,600 square feet of meeting space and 4,000 square feet back of house space on Level 1. The P1 Level would contain approximately 1,400 square feet of restaurant space at the corner of Argyle Avenue and Yucca Street, a ground-level 3,270 square foot restaurant space, a ground-level 3,450 square foot

commercial space, and an approximately 4,380 square foot restaurant/bar with outdoor dining on Level 4.

Proposed site plans for the project are attached as **Exhibit 1**. Renderings of the project are attached as **Exhibit 2**.

Information to show the project will qualify for LEED Silver Certification. The application shall specify those design elements that make the project eligible for LEED Silver Certification, and the applicant shall submit a binding commitment to delay operating the project until it receives LEED Silver Certification. If, upon completion of construction, LEED Silver Certification is delayed as a result of the certification process rather than a project deficiency, the applicant may petition the Governor to approve project operation pending completion of the certification process.

The project will encourage design and construction decisions that have the potential to reduce energy and water use, promote resource conservation through redevelopment and the sourcing of local construction materials and create healthier indoor environments. The project will achieve the United States Green Building Standards (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification under the LEED version 2009 (v3) or the Silver Certification under the LEED v4 rating system. Achieving LEED Gold Certification requires obtaining at least 60 points and Silver Certification requires obtaining at least 50 points satisfying eight categories, which can be organized into three overarching themes: Siting and Transportation, Building Performance, and Material Selection. The end result is a positive impact on resource conservation, the built environment, and the local community.

Siting, Transportation, and Mixed Use addresses preservation of undeveloped property by encouraging infill development, adaptive re-use of existing historic buildings, and facilitating pedestrian activity by integrating a diversity of uses and providing convenient access to public transportation. The Yucca Argyle project is located in a prime urban location close to transit, entertainment and employment and will integrate a range of commercial, retail and residential spaces arranged around public and private open spaces. The project will also be designed to incorporate heat island reduction strategies for 50 percent of hardscapes or provide 100 percent underground parking and incorporate heat island reduction strategies for 75 percent of roof areas.

The project's placement to the intersection of two main commute arterials of Hollywood Boulevard and Vine Street increases efficiencies to the siting and transportation in the area. The project is also located within a ¼-mile walking distance to multimodal transportation choices, including the existing Metro Red Line (Hollywood and Vine Station) and bus lines. Additionally, the project will provide short- and long-term bicycle parking and showers for bicycle commuters to facilitate "last mile" connectivity to transit options.

Lastly, alternatives to conventionally fueled automobiles will be promoted by providing 20 percent of parking spaces that shall be electric vehicle-ready with 5 percent equipped with electric

vehicle charging stations and preferred parking for alternative-fuel vehicles, low-emitting, and fuel-efficient and ride-sharing vehicles.

Building Performance emphasizes water and energy efficiency to maximize livability with reduced resource consumption. Consideration will be taken to select high-performance materials, fixtures and appliances to reduce energy demand by a minimum of 5 percent for energy efficiency, based on the California Title 24 (2016) Building Energy Efficiency Standards and water consumption by 35 percent for indoor water and 50 percent for outdoor water from the LEED or regional usage baseline. Additionally, a construction and demolition waste management plan will maximize the recycling or salvage of nonhazardous construction debris.

Material Selection attempts to reduce the building's life cycle impact through the selection of upcycled, recycled and locally sourced materials where feasible and also minimize exposure to environmental toxins by choosing low VOC materials. A few practices being considered are using refrigerants that minimize ozone depletion, using building materials with a minimum of 10 percent recycled-content by cost, using adhesives, sealants, paints, finishes, carpet, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air quality pollutants, and providing on-site recycling containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers during construction and after the building is occupied.

Green Building Measures: The project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the USGBC LEED Gold or Silver Certification. The project would incorporate measures and performance standards to support its LEED Gold or Silver Certification, which include but are not limited to the following:

The project would implement a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris or minimize the generation of construction waste to 2.5 pounds per square foot of building floor area.

The project would be designed to optimize energy performance and reduce building energy cost by a minimum of 5 percent for new construction compared to the Title 24 (2016) Building Standards Code.

The project would provide a minimum of 30 kilowatts of solar photovoltaic panels on the project site, unless additional kilowatts of photovoltaic panels become feasible due to additional area being added to the project site.

The project would reduce emissions through the use of grid-source, renewable energy technologies and carbon mitigation or offset projects. The project would enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (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 project's emissions attributable to such building in the project, as well as all previously

constructed buildings in the project and shall be calculated on a net present value basis for a 30-year useful life.

The project would reduce indoor water use by a minimum of 35 percent by installing water fixtures that exceed applicable standards and outdoor water use by 50 percent.

The GHG Emissions Offset Approach for the Yucca Argyle Project / Commitment Letter and LEED Measures, dated February 23, 2017, is attached as **Exhibit 3**.

Information to show the project will achieve at least 10 percent greater transportation efficiency than comparable projects. "Transportation efficiency" is defined as the number of vehicle trips by employees, visitors, or customers to the project divided by the total number of employees, visitors, and customers. The applicant shall provide information setting forth its basis for determining and evaluating comparable projects and their transportation efficiency, and how the project will achieve at least 10 percent greater transportation efficiency. For the purpose of this provision, comparable means a project of the same size, capacity and location.

The project is considered an "infill" project, as it is replacing existing residential uses with a high-density, mixed-use development.

The project is located in the Hollywood community of the City of Los Angeles (City) approximately 200 feet from the Hollywood Freeway (US 101), which provides regional transportation between downtown Los Angeles and the San Fernando Valley. It is also located approximately 600 feet from a major arterial corridor, Hollywood Boulevard. US 101 carries over 200,000 vehicles per day on an average weekday, and Hollywood Boulevard, designated as Avenue I in the City's *Mobility Plan 2035: An Element of the General Plan* (January 2016), carries over 30,000 vehicles per day on an average weekday. Thus, the project will likely attract existing trips in the area that are "passing by" on the way to another destination, particularly during the weekday AM and PM peak hour. The 50 percent pass-by reduction applied to the retail uses and the 20 percent pass-by reduction applied to the restaurant uses are derived from surveys published in *Trip Generation Handbook: An ITE Recommended Practice* (ITE, 2003).

The project site is located within 700 feet of the Los Angeles County Metropolitan Transportation Authority's (Metro) Hollywood/Vine Station, which provides service to the Metro Red Line subway. The Metro Red Line travels between Union Station in Downtown Los Angeles and North Hollywood in the San Fernando Valley at 10 minute intervals during the commuter AM and PM peak hours and throughout the day. The project site is also served by numerous transit lines within walking distance on Yucca Street, Argyle Avenue, and Hollywood Boulevard, including Metro Lines 180/181, 210, 217, 757, and 780, as well as the Los Angeles Department of Transportation (LADOT) DASH Hollywood, Beachwood Canyon, and Hollywood/Wilshire routes. Bicycle routes with shared lane markings, or "sharrows," are also provided adjacent to the project site on Argyle Avenue

A transportation demand management (TDM) program will be implemented to reduce the project's single occupant vehicles trips and increase the trips arriving via alternative modes of transportation (e.g., walking, bicycle, carpool, vanpool, and transit). The TDM program would include design features, transportation services, education, and incentives intended to reduce the amount of single occupant vehicles during commuter peak hours. The TDM program may include the following strategies:

- Promotion and support of carpools and rideshares
- On-site short-term car rentals
- Bicycle amenities (bicycle racks, lockers, showers, etc.)
- A contribution to the City's Bicycle Plan Trust Fund for bicycle facility improvements
- Education and information on alternative transportation modes
- Preferential parking location for high occupancy vehicles
- Participation in the Hollywood Transportation Management Organization

The combined effects of the project's urban infill location along major corridors, proximity to transit and pedestrian amenities, and proposed TDM program would reduce the project's anticipated vehicular trip generation estimates by a minimum of approximately 30 percent as compared to a comparable mixed-use project. Therefore, the project results in at least 10 percent greater transportation efficiency or more.

The AB 900 Traffic Assessment for the 6220 West Yucca Project, dated January 12, 2017, is attached as **Exhibit 4**.

Information to show the project is located on an infill site, defined at Public Resources Code Section 21061.3, and in an urbanized area, as defined at Public Resources Code Section 21071

The project is located on an infill site. Under Public Resources Code (PRC) Section 21061.3, an "infill site" is defined as a site that "has been previously developed for qualified urban uses." In turn, a "qualified urban use" is defined, pursuant to PRC Section 21072, as "any residential, commercial, public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses." Additionally, the project is located in an "urbanized area," which is defined under PRC Section 21071 as "an incorporated city" that meets the criteria of having a population of at least 100,000 persons. The City of Los Angeles has a population of 3,957,022 in 2014 according to the 2015 estimates prepared by the California Department of Finance. The project would represent an urban infill development since it would be located on a site that meets the definition of an infill site in an urbanized area and would be considered a qualified urban use.

For a project that is within a metropolitan planning organization for which a sustainable communities strategy or alternative planning strategy is in effect, information to show the project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy, for

which the State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets. For the purposes of this provision, "in effect" means that the sustainable communities strategy or the alternative planning strategy has been adopted by the metropolitan planning organization, and that the Air Resources Board has accepted the metropolitan planning organization's determination that the sustainable communities strategy or alternative planning strategy meets the adopted greenhouse gas reduction targets and is not the subject of judicial challenge.

California Senate Bill (SB) 375 was passed by the State Assembly on August 25, 2008 and signed into law by the Governor on September 30, 2008. This legislation links regional planning for housing and transportation with the greenhouse gas (GHG) reduction goals outlined in California Assembly Bill (AB) 32. Under SB 375, each Metropolitan Planning Organization (MPO) is required to adopt a Sustainable Community Strategy to encourage compact development that reduces passenger vehicle miles traveled (VMT) and trips so that the region will meet a target, created by the California Air Resources Board (CARB), for reducing GHG emissions.

The project is within the jurisdiction of the Southern California Association of Governments (SCAG). On April 4, 2012, SCAG's Regional Council adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future (2012–2035 RTP/SCS). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 RTP/SCS: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life. The 2016-2040 RTP/SCS reaffirms the land use policies that were incorporated into the 2012-2035 RTP/SCS. On June 28, 2016, CARB accepted SCAG's quantification of GHG emission reductions from the 2016 SCS and the determination that the 2016 SCS would, if implemented, achieve the 2020 and 2035 GHG emission reduction targets established by CARB.[1]

The purpose of the SCAG RTP/SCS is to achieve its assigned regional per capita GHG reduction targets for the passenger vehicle and light-duty truck sector established by CARB pursuant to SB 375. SCAG's RTP/SCS plans for regional population growth using smart land use strategies. As part of the SCS/RTP, "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."[2] Moreover, the 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 RTP/SCS would "supports sustainable growth through a

1 CARB, Executive Order G-16-066, SCAG 2016 SCS ARB Acceptance of GHG Quantification Determination, April 2016 (http://www.arb.ca.gov/cc/sb375/scag_executive_order_g_16_066.pdf).

2 Southern California Association of Governments, Draft Program Environmental Impact Report – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015), page 3.8-35.

more compact, infill, and walkable development pattern."[3] Accordingly, the RTP/SCS outlines the region's plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Additionally, the RTP/SCS demonstrates the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB. The majority of new housing and job growth is focused in high-quality transit areas (HQTA) and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development (TOD). This overall land use development pattern supports and complements the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management (TDM) measures.

Adopted strategies for the reduction of GHG emissions, as part of the 2012–2035 RTP/SCS and the 2016-2040 RTP/SCS, have the potential to significantly change the region's land use and travel patterns to achieve GHG reductions by 2020, 2035, and 2040. Such strategies include (but are not limited to) the following:

- Compact growth in areas accessible to transit;
- Half of all new development on three percent of the region's land use;
- More multi-family housing, jobs, and housing closer to transit;
- New housing and job growth focused in HQTAs; and
- Investments in biking and walking infrastructure to improve active transportation options and transit access.

Consistent with the RTP/SCS, 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 provided by the nearby Metro Red Line, which provides convenient access to locations within North Hollywood, Universal City, Hollywood and Downtown Los Angeles and direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood). The SCAG objective of more multi-family housing in proximity to jobs and transit would be accomplished by the proposed development. New housing and job growth, as a result of the completed project, is focused in a HQTA, which SCAG defines as an area within a half mile of a well-serviced transit stop. A well-service transit stop is one which has a 15 minute or less service frequency during peak commute hours."[4] As discussed above, the project would be consistent with this strategy.

3 Ibid, page 3.8-36.

4 Technical Evaluation of the Greenhouse Gas Emission Reduction Quantification for the Southern California Association of Governments' SB 375 Sustainable Communities Strategy, dated May 2012. Document located on the ARB website: http://www.arb.ca.gov/cc/sb375/scag_scs_tech_eval0512.pdf.

The project would provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16, to encourage non-polluting transportation alternatives. Data from the City of Los Angeles shows that within the Hollywood Community Plan Area, the area in which the project site is located, the percentage of workers that commute to work by walking, biking, and public transportation is approximately 22 percent for the area as a whole based on 2010 data.[5] The statewide percentage of workers that commute to work by walking, biking, and public transportation is approximately 9 percent based on census data for the 2010 to 2014 period.[6] The data indicates that the project site area, which is located in the Hollywood Community Plan Area, substantially exceeds the statewide average for the percentage of workers that commute to work by walking, biking, and public transportation. The high proportion of workers that commute to work by walking, biking, and public transportation in the project site area supports a reasonable expectation that residents and visitors of the project would have access to and would utilize alternative forms of transportation. This finding is consistent with the California Air Pollution Control Officers Association (CAPCOA) findings in the CAPCOA guidance, *Quantifying Greenhouse Gas Mitigation Measures*, land use transportation (LUT) measure LUT-5 (Increase Transit Accessibility), which indicates that "high density near transit will facilitate the use of transit by people."[7]

Therefore, the project would be consistent with the goals of the SCAG RTP/SCS, which seeks "[s]trategies focused on high-quality places, compact infill development, and more housing and transportation choices." As this information demonstrates, the project has been proposed in an area where its development can achieve substantial reductions in VMT and associated mobile source emissions relative to the statewide average. The project's traffic study also verifies that the proposed development would result in decreases of the average auto trip length and per capita VMT. By adhering to SCAG's strategies to reduce VMT and associated GHG emissions, as noted above, the project serves to fulfill the MPO's determination that the RTP/SCS meets the adopted GHG reduction targets.

Information to show that the applicant has notified a lead agency prior to the release of the draft environmental impact report that it intends to certify a project for streamlined environmental review under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011. Written acknowledgment from the lead agency of the applicant's intent to apply for certification may be used to satisfy this requirement.

5 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 112. Document located on the City of Los Angeles website: http://planning.lacity.org/cwd/framwk/healthwellness/healthwellness.htm.

6 U.S. Census Bureau, American FactFinder, Data Set B08301 (Means of Transportation to Work, California, 2010-2014), Data obtained from the U.S. Census Bureau website: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_B08301&prodType=table.

7 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171.

Prior to the circulation of the Draft Environmental Impact Report (DEIR) and well before approval of the project entitlements, the City of Los Angeles, lead agency for the project, shall be notified that the Applicant is seeking certification for the project under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011, as amended by SB 743 and SB 734.

Information to show that the project will result in a minimum investment of $100 million in California through the time of completion of construction.

Development cost estimates for the construction period of the Yucca Argyle development plan is currently estimated to be in the range of $180 million. This activity is estimated to generate fiscal impacts and economic benefits as summarized in **Table 1** below:

TABLE 1
OVERVIEW OF FISCAL IMPACTS AND ECONOMIC BENEFITS

	Construction (One-Time / Short-Term)	Ongoing Operation (Annual)
Employment	**1,995 Jobs**	**194 Jobs**
Labor Income	**$142,107,152**	**$8,913,684**
Economic Output	**$314,303,776**	**$25,342,522**
State and Local Taxes	**$12,264,531**	**$4,919,656**
City of Los Angeles and other Local Cities	$389,198	$2,011,600
County of Los Angeles	$681,097	$892,849
State and Other Local	$11,194,235	$2,015,207
Federal Taxes	**$25,568,537**	**$2,082,428**

SOURCE: Kosmont Companies, 6220 West Yucca Street Fiscal Impact & Economic Benefit Analysis, March 2017.

A detailed Fiscal Impact and Economic Benefit Analysis for the Yucca Argyle Project, dated March 2017, is attached as **Exhibit 5**.

Information to show that the project will satisfy the prevailing and living wage requirements of Public Resources Code section 21183(b).

The project will create high-wage, highly skilled jobs that pay prevailing wages and living wages and will comply with all provisions of Public Resources Code Section 21183 as ordered and amended by SB 734. The Applicant has already entered into a project labor agreement (PLA) specifically to fulfill the requirements of Section 21183 as ordered by SB 734.

Information establishing that the project will not result in any net additional greenhouse gas emissions. This information includes (1) a proposed methodology for quantifying the project's net additional greenhouse gas emissions, and (2) documentation that quantifies both direct and indirect greenhouse gas emissions associated with the project's construction and operation, including emissions from the project's projected energy use and

transportation related emissions; and quantifies the net emissions of the project after accounting for any mitigation measures. This information is subject to a determination signed by the Executive Officer of the Air Resources Board that the project does not result in any net additional greenhouse gas emissions, following the procedures set forth in section 6 of the Governor's Guidelines.

The project will not result in any net additional greenhouse gas (GHG) emissions. The proposed methodology for quantifying the project's GHG emissions is attached as **Exhibit 6**.

Prior to the onset of construction activity, the existing uses will be vacated and all facilities will cease to operate. The project site is currently improved with one single-family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas, all of which would be demolished and removed to allow for development of the project. Given the physical space limitations of the project site, the entire site would be fully built out prior to occupancy. Thus, the project would not result in simultaneous construction and operation GHG emissions from partial occupancy during construction.

Construction of the project would result in one-time GHG emissions of carbon dioxide (CO_2) and smaller amounts of methane (CH_4) and nitrous oxide (N_2O) from heavy-duty construction equipment, haul trucks, and worker vehicles. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and on-road emissions factors. The emissions are estimated using the California Emissions Estimator Model (CalEEMod), which incorporates the CARB off-road emissions factor model, OFFROAD, and the on-road emissions factor model, EMFAC. The output values used in this analysis are adjusted to be project-specific based on expected equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for each construction year. The CalEEMod tool provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Since a specific construction contractor(s) has not yet been retained for the project, specific equipment specifications are not yet known. Therefore, air district recommended default equipment and vehicle horsepower ratings and load factors provided in CalEEMod are used in this assessment. The use of these CalEEMod factors is recognized as providing a reasonably conservative estimate of a project's construction emissions. Construction of the project would occur over a number of phases and include activities such as demolition, debris and soil hauling, building construction, architectural coating, and paving. The construction phases are not independent of each other, as there may be overlap and efficiency built into the construction process. Information regarding the activities that would occur during these phases is provided below:

- **Demolition:** This first phase is anticipated to begin as early as 2018 and last for just under one month (approximately three weeks). If construction commences at a later date, this assessment would be considered conservative as future year emission factors tend to decline in future years. Construction equipment would include an excavator, dozers concrete saw, tractors/loaders/backhoes, haul trucks, and other construction equipment.

- **Site Preparation:** This phase is anticipated to begin after the demolition phase and last for approximately one to two weeks. Construction equipment would include tractors/loaders/backhoes and rubber tired dozers.
- **Grading and Excavation:** This phase is anticipated to begin after the site preparation phase and last for approximately four months. Construction equipment would include a drill rig, excavators, dozer, loader, scraper, tractors/loaders/backhoes, haul trucks, and other equipment. Up to approximately 120,000 cubic yards of soil, based on conservative measurements, would be excavated and exported.
- **Building Construction:** This phase is anticipated to begin after grading and last for approximately 17 months. During this phase, the parking structure and residential and commercial buildings would be constructed. Construction equipment would include forklifts, crane, tractors/loaders/backhoes, generator, welders, concrete pump, concrete trucks, and other construction equipment.
- **Paving:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, paving materials would be poured during construction of the buildings and related features and the surfaces would be paved. Construction equipment would include a concrete truck, paving equipment, and other equipment.
- **Architectural Coating:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, the interior and exterior coating would be applied to the residential and commercial buildings. Specific coating equipment would include an air compressor.

Operation of the project would generate GHG emissions from vehicles traveling to and from the site, area sources (landscaping equipment and hearths) energy demand (electricity and natural gas), water demand, and solid waste generation. Physical and operational land use characteristics and green building features for which sufficient data is available to quantify the reductions from building energy and resource consumption are accounted for in the quantitative analysis, and include but are not limited to the following measures described below.

Land Use Characteristics: The project characteristics listed below are consistent with the CAPCOA guidance document, *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for land-use transportation characteristics and measures, and would reduce vehicle trips to and from the project site compared to a project located in an area without these characteristics. They would therefore result in a corresponding reduction in VMT and associated GHG emissions.

- **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 measure corresponds to CAPCOA guidance measure LUT-1. 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/compact infill location and is mixed-use; therefore, this measure applies to the project. The project would increase the project site density to approximately 181 dwelling units per acre.

- **Location Efficiency:** Location efficiency describes the location of the 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. This measure corresponds to CAPCOA guidance measure LUT-2. 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the geographic location of the project within the region. The project site represents an urban/compact infill location within the Hollywood community of the City 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 South Coast Air Basin average and would result in corresponding reductions in transportation-related emissions.
- **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 could be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This measure corresponds to CAPCOA guidance measure LUT-3. According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the percentage of each land use type in the project. The project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The project would include on-site 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 and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
- **Increased Destination Accessibility:** This measure corresponds to CAPCOA guidance measure LUT-4. 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure 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, studio/production, office, entertainment, movie theater, and residential uses. The project site is also located near other job centers in the region, which include Downtown Los Angeles (easily accessible via the Metro Red Line station located within a quarter mile of the site), Beverly Hills, Century City, Westwood, and the Hollywood area itself. The access to multiple destinations in close proximity to the project site would reduce vehicle trips and VMT compared to the statewide and South Coast Air Basin average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.

- **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 measure corresponds to CAPCOA guidance measure LUT-5. According to CAPCOA, the reduction in VMT from this measure 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the distance to transit stations near the project. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood) and the Metro Red Line, which provides convenient access to North Hollywood, Universal City, Hollywood, and Downtown Los Angeles. The project would provide access to on-site uses from existing pedestrian pathways. The project would also provide parking for approximately 402 bicycles on-site to encourage utilization of alternative modes of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the statewide and South Coast Air Basin average, encourage 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 measure corresponds to CAPCOA guidance measure SDT-1. According to CAPCOA, the reduction in VMT from this measure applies to urban, suburban, and rural settings for residential, retail, office, industrial, and mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include pedestrian access connectivity within the project and to/from off-site destinations. The project would improve the street-level pedestrian environment and connectivity to the surrounding Hollywood area, with pedestrian access to commercial/restaurant uses provided from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bike parking along Argyle Avenue, Yucca Street, and Vista Del Mar Avenue. 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.

Green Building Features: The project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. Green building measures would include, but are not limited to the following.

- The project would be designed to optimize energy performance and reduce building energy cost by a minimum of 5 percent for new construction compared to the Title 24 Building Energy Efficiency Standards (2016);
- The project would be designed to optimize energy performance and reduce building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent;
- The project would reduce outdoor potable water use by a minimum of 20 percent compared to baseline water consumption. Reductions would be achieved through drought-tolerant/California native plant species selection, irrigation system efficiency, alternative

water supplies (e.g., stormwater retention for use in landscaping), and/or smart irrigation systems (e.g., weather-based controls).

- The project would reduce indoor potable water use by a minimum of 20 percent compared to baseline or standard water consumption by installing water fixtures that exceed applicable standards.
- The project would provide on-site recycling areas, consistent with City of Los Angeles strategies and ordinances, with the goal of achieving 70 percent waste diversion by 2020, and 90 percent by 2025.
- To encourage carpooling and the use of electric vehicles by project residents and visitors, the Applicant shall designate a minimum of eight (8) percent on on-site parking for carpool and/or alternative-fueled vehicles and shall pre-wire, or install conduit and panel capacity for, electric vehicle charging stations for a minimum of five (5) percent of on-site parking spaces.

Detailed GHG emissions calculations demonstrating a net zero increase is attached as **Exhibit 6**.

Information documenting a binding agreement between the project proponent and the lead agency establishing the requirements set forth in Public Resources Code sections 21183(d) (all mitigation measures will be conditions of approval and enforceable, and environmental mitigation measures will be monitored and enforced for the life of the obligation), (e) (applicant will pay costs for hearing by Court of Appeal), and (f) (applicant will pay costs of preparing the administrative record).

SB 743 (effective January 1, 2014) amended the AB 900 Guidelines, regarding the documentation of a binding agreement between the project proponent and the lead agency establishing the requirements set forth in Public Resources Code sections 21183 (d) (e) and (f), to remove the need for a binding agreement prior to the release of the Draft Environmental Impact Report. Section 21181 as amended by SB 734 requires the Governor to certify the project as an environmental leadership development project eligible for streamlining prior to January 1, 2018. The Applicant is proceeding with the Draft EIR pursuant to the AB 900 Guidelines and the requirements of Public Resources Code section 21187 as amended.

The letter of acknowledgement and binding agreement between the Applicant and the City of Los Angeles is provided in **Exhibit 7**.

Information per Public Resources Code 21184.5 as amended by SB 734 to show the project is providing unbundled parking for residential dwelling units, except for affordable dwelling units.

The project will provide unbundled parking for the residential dwelling units.

Consistency with Planning Goals, Policies and Objectives of the City Of Los Angeles.

The project site is located within the Hollywood Community Plan area in the City of Los Angeles. The project site has General Plan land use designations of Regional Center Commercial

and Medium Residential and is currently zoned Commercial-Height District 2 with Development Limitation-Sign Supplemental Use District (C4-2D-SN), Multiple Dwelling-Height District 2 with Development Limitation (R4-2D), and Multiple Dwelling-Height District 1XL ([Q]R3-1XL). The 'Q' Condition limits the residential density to one dwelling unit per 1,200 square feet of lot area. The 'D' limitation restricts the Floor Area Ratio (FAR) to 2:1, unless certain approvals are received. The project site is located in the Hollywood Redevelopment Plan area and the Plan limits Regional Center Commercial designations to a 4.5:1 FAR with a maximum 6:1 FAR with City Planning Commission approval. The project will seek up to a 10 percent adjustment to the FAR for the site. The project site is also located in a Los Angeles State Enterprise Zone; an Adaptive Reuse Incentive Area; and within the Vista Del Mar Avenue/Carlos Historic District (properties along North Vista Del Mar Avenue only).

The project is consistent with many of the goals, policies and objectives of the City of Los Angeles General Plan, the Housing Element, and the Do Real Planning Guidelines. In addition, all entitlements being considered for approval by the City of Los Angeles conform with the appropriate sections set forth in the LAMC and the underlying zoning.

General Plan Framework

The General Plan Framework includes the following goals, objectives and policies relevant to the proposed mixed-use development:

Objective 3.1: Accommodate a diversity of uses that support the needs of the City's existing and future residents, businesses, and visitors.

Policy 3.1.1: Identify areas on the Land Use Diagram and the Community Plans sufficient for the development of a diversity of uses that serve the needs of existing and future residents (housing, employment, retail, entertainment, cultural/institutional, educational, health, services, recreation, and similar uses), provide job opportunities, and support visitors and tourism.

The project would provide 210 multi-family residential units, 136 hotel rooms, and approximately 12,500 square feet of commercial/restaurant uses to replace 43 multi-family units and one single-family residence on the project site. The range of housing types and additional commercial/restaurant uses represent a more diverse mix of land uses that would support the needs of the City's existing and future residents, businesses, and visitors.

The Framework Element Land Use Diagram(s) designate(s) districts, centers and mixed use boulevards that are encouraged to develop with appropriate uses and character for their land use designations. The project site (West and Center Parcels) is located in an area that is identified as a "Regional Center" and targeted for high density growth on the General Plan Framework's Land Use Diagram. Development of the project would support the intent of the Regional Center designation by providing a mix of uses that provide employment opportunities and enhance commercial services. The provision of residential units at this Hollywood location would serve the needs of existing and future residents, would expand the diversity within the designated

Regional Center, and provide housing in close proximity to commercial, retail, entertainment, and restaurant uses. The provision of the hotel component would contribute a large number of hotel rooms to the area, thus supporting tourism and the economic viability of the entertainment, commercial, and tourist activities in the area**.**

Objective 3.2: To provide for the spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicle trips, vehicle miles traveled, and air pollution.

Policy 3.2.3: Provide for the development of land use patterns that emphasize pedestrian/bicycle access and use in appropriate locations.

The project would contribute to the concentration of mixed-use development along a corridor with convenient access to the Metro Red Line (within 0.13 miles), Metro bus and Metro rapid bus lines, and the LADOT DASH lines. The new residential population and hotel patrons would have access to commercial development on site as well as retail, restaurant, office, and entertainment activities within walking and biking distance and via bus and rail service.

The project would provide pedestrian access from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bicycle parking along Argyle Avenue, Yucca Street, and Vista Del Mar Avenue. The additional building setbacks along Argyle Avenue and Yucca Street would be combined to increase the width of the sidewalks and enhance pedestrian access. The project would also include 402 short-term and long-term bicycle parking stalls.

The project's location, design, and specific features, including its proximity to high-capacity and high-frequency transit, easily accessible ground-floor retail and restaurant uses, and implementation of a TDM program that will reduce the use of single occupant vehicles and increase the number of trips by walking, bicycle, carpool, vanpool, and transit. The project would be expected to result in VMT reductions of approximately 30.3 percent daily, including 30.5 percent during the morning peak hour and 31.9 percent during the afternoon peak hour.

Objective 3.16: Accommodate land uses, locate and design buildings, and implement streetscape amenities that enhance pedestrian activity.

The exterior boundaries of the project site along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue would provide streetscape amenities for pedestrians, including café tables, parkway planters, and bicycle parking. A resident-only outdoor courtyard space would be provided along Vista Del Mar at the southeast portion of the project site. The project would also include ground-level commercial uses along Yucca Street and Argyle Avenue, which would also enhance pedestrian activity

Housing Element 2013-2021

The project is consistent with several goals, objectives and policies of the Housing Element 2013-2021, recently adopted by the Los Angeles City Council on December 3, 2013. The City of Los Angeles is committed to providing affordable housing and amenity-rich sustainable neighborhoods for its residents, answering the variety of housing needs of its growing population.

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 SCAG's Regional Housing Needs Assessment.

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.
Objective 1.1: Produce an adequate supply of rental and ownership housing in order to meet current and projected needs.
Policy 1.1.3: Facilitate new construction and preservation of a range of different housing types that address the particular needs of the city's households.
Policy 1.1.4: Expand opportunities for residential development, particularly in designated Centers, Transit Oriented Districts and along Mixed-Use Boulevards.

The 2013 – 2021 Housing Element identifies a need for 82,002 new housing units, of which 35,412 units, i.e. 43.2 percent of all units, would be marketed at above moderate income levels. The remaining 56.8 percent of the needed housing units consist of 13,728 moderate income units (16.8 percent), 12,435 low income units (15.2 percent), 10,213 very low income units (12.5 percent), and 10,213 extremely low income units (12.5 percent). The project would provide 210 new multi-family residential units that would serve the growing population of the community in a designated Regional Center. The project would also include commercial and restaurant uses and hotel rooms, which would contribute to meeting the needs of project residents. However, the project would remove 44 residential units (43 multi-family units and one single-family residence) and result in a net increase of 166 dwelling units in the Hollywood Community Plan area. The 166 units would represent 0.20 percent of the 82,002 needed units identified in the SCAG RHNA for the 2013 to 2021 planning period. Although existing residential units would be removed, the resulting project would provide a greater range of housing types.

Objective 1.3: Forecast and plan for changing housing needs over time in relation to production and preservation needs.

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 the projections of housing needs, according to the policies and objectives of the City's Framework Element of the General Plan.

The project would concentrate new housing within a Regional Center consistent with policies and objectives of the Framework Element. Furthermore, as stated above, the project would meet housing needs identified in SCAG's Regional Housing Needs Assessment.

Goal 2: Safe, Livable, and Sustainable Neighborhoods

Objective 2.1: Promote safety and health within neighborhoods.

Policy 2.1.1: Establish development standards and policing practices that reduce the likelihood of crime

Policy 2.1.2: Establish development standards and other measures that promote and implement positive health outcomes.

The project would promote safety and health within the neighborhood by providing landscaping, new sidewalks, and lighting along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue and introducing commercial and restaurant uses along Yucca Street and Argyle Avenue. The project would incorporate 24-hour/seven day security program to ensure the safety of residents and visitors, including controlled access, video surveillance, and security personnel.

The project would implement Project Design Features to promote positive health outcomes, including compliance with the Los Angeles Green Building Code and 2016 California Green Building Standards (CALGreen) Code, and compliance with USGBC LEED Gold or Silver Certification or equivalent standards. The project would be located along a mixed-use corridor that would provide opportunities for pedestrian, bicycle, and public transit. In addition, the project would provide 402 short-term and long-term bicycle parking spaces. Although the project would place residential uses near the Hollywood Freeway, the residents would be located at an adequate distance from the freeway so that exposure to freeway-generated toxic air contaminants would not pose a significant health risk.

Objective 2.3: Promote sustainable buildings, which minimize adverse effects on the environment and minimize the use of non-renewable resources.

Policy 2.3.2: Promote and facilitate the reduction of water consumption in new and existing housing.

Policy 2.3.3: Promote and facilitate reduction of energy consumption in new and existing housing.

Policy 2.3.4: Promote and facilitate reduction of waste in construction and building operations.

The project would ensure sustainable building design through compliance with the 2016 CALGreen Code, Los Angeles Green Building Code, Los Angeles Building Code, Planning and Zoning Code, and compliance with USGBC LEED Gold or Silver Certification or equivalent standards. Design features of the project would include the use of energy efficient glass/window areas for ventilation and daylight accessibility; landscaping of roof deck (Level 13); well-lit pedestrian areas; common open space for residents, including an outdoor courtyard, rooftop garden space, and on Level 6 outdoor dining, pool deck, and fitness center that is shared with hotel guests. The project would implement a construction waste management plan and reduce indoor water use by a minimum of 20 percent or more. The project would include a dedicated on-site recycling area

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.

Policy 2.4.1: Promote preservation of neighborhood character in balance with facilitating new development.

Policy 2.4.2: Develop and implement design standards that promote quality residential development.

The project would provide 210 multi-family residential units within two buildings. Building 1, at a height of 20 stories, would be consistent with the more intense mixed-use development along Yucca Street and Argyle Avenue. Building 2, which is all residential, would be reduced in height to four stories and would incorporate deep landscape setbacks along Vista Del Mar Avenue and the southern property line to support compatibility in scale and character with the adjacent residential neighborhood.

City Planning Commission – Do Real Planning

Promoting the ideals of inspired, principles land use planning concepts at a citywide level, the Los Angeles City Planning Commission has fostered new visions with its "Do Real Planning." The proposed project fulfills several of these important objectives and goals:

Demand a Walkable City: This concept poses the question of whether a project actively welcomes its own users, its neighbors and its passerby. The project proposes a walkable concept along a major commercial corridor by orienting commercial retail spaces towards the street frontages. The project would provide an enhance street frontage with ground level retail along Yucca Street and Argyle Avenue, and landscaping and new sidewalks along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue. Ground level retail and café seating would be provided along Yucca Avenue and Argyle Avenue. The project would provide landscaping in public areas along Yucca Street, Argyle Avenue, and Vista Del Mar and landscaping of private common areas, including the outdoor courtyard, roof garden, and pool deck. These features would enliven the pedestrian environment and improve the visual character of the project site and Hollywood Regional Center.

Offer Basic Design Standards: The project would replace three existing apartment buildings, a duplex with a detached garage, a studio apartment over garage, and a single-family with a 32-story mixed-use building (Building 1) and a six-story residential building (Building 2). The project would be tiered from west to east so that the Building 1 would be located near Argyle Avenue and Yucca Street near similar high rise mixed-use development and Building 2 would incorporate deep setbacks along Vista Del Mar Avenue and the southern property line to be compatible with the adjacent residential neighborhood.

Require Transit Around Density: The project would increase population density in an area that is well served by public transit, including a Metro Red Line station, multiple regional Metro bus routes, and LADOT DASH Lines. The project would provide convenient access to employment opportunities in the Hollywood community and provide new employment opportunities as part of the retail, restaurant, and hotel components. The project would congregate additional density in an area that is close to transit.

Locate Jobs Near Housing: The Commission observes that "the time for segregating jobs from housing in Los Angeles has passed." The Commission observes that the City has "several stale business boulevards and districts that are ripe for renovation; in these traditionally commercial-only locations, we must include both jobs and housing in the mix." The project site is primed for

renovation proposed by the Commission insofar as the project would bring both jobs and housing into the mix with the proposed mixed-use development.

Produce Green Buildings: The project would comply with the applicable requirements of the 2016 CALGreen Code, the Los Angeles Green Building Code, and compliance with the USGBC LEED Gold or Silver Certification or equivalent standards. Some of the project's key design features that would contribute to energy efficiency include the use of energy efficient glass/window areas for ventilation and daylight accessibility, and landscaping of roof decks. Other building features would include: stormwater retention; installation of energy-efficient HVAC systems that utilize ozone-friendly refrigerants; use of materials and finishes that emit low quantities of VOCs; use of high efficiency fixtures and appliances; water conservation features; and dedicated on-site recycling area.

Identify Smart Parking Requirements: The project would replace one single-family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas at the corner of Yucca Street and Argyle Avenue with a 20-story building atop a six-level parking podium (including two fully subterranean and two semi-subterranean levels) and a three-story building atop a two-story podium parking structure (including one subterranean and one ground parking level). The parking structure within Building 1 would include 415 parking spaces (311 for residential uses, 79 for hotel uses, and 25 for commercial/restaurant uses). Parking for Building 2 would be provided in a two-level podium structure within the ground level and one subterranean level. The parking structure within Building 2 would include 23 parking spaces for residential uses. Entrance to the parking podium would be provided via Yucca Street and Argyle Avenue. The buildings and podium would be modern in design and feature glass clad exterior walls. The project would provide an enhance street frontage with ground level retail along Yucca Street and Argyle Avenue, and landscaping and new sidewalks along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue.

Exhibit 1 Project Site Plans

Project Summary

Address	Existing Zoning	Proposed Zoning	Lot Area	Max. Density	Proposed Density		Proposed Hotel	Buildable Area	Max. Floor Area	Proposed Floor Area	
					Site A & B (Bldg. 1)	**Site C (Bldg. 2)**				**Site A & B (Bldg. 1)**	**Site C (Bldg. 2)**
6220-6224 Yucca	C4-2D-SN	C2-2	19,707.2 sf	39,421.9 sf / 200 = = **197 Units**	1 Bed - 99 Units 2 Bed - 88 Units Suite - 10 Units	1 Bed - 5 Units 2 Bed - 8 Units	116 Rooms 20 Suites	19,707.2 sf (=Lot Area)	**48,022.5 sf x 6 = 288,135 sf x 1.1 (10%) = 316,948.5 sf**	**300,603 sf**	**16,345 sf**
6210-6216 Yucca	R4-2D	C2-2	19,714.7 sf					19,714.7 sf (=Lot Area)			
1777-1779 N. Vista del Mar 1771 N. Vista del Mar 1765 N. Vista del Mar	[Q]R3-1XL	R3-2	10,941.9 sf	10,941.9 sf / 800 = = **13 Units**				8,600.6 sf (=Lot Area - setbacks for 1 story bldg.)			
			50,363.8 sf (1.16 Acres)	**210 Units**	**197 Units**	**13 Units**	**136 Rooms**	**48,022.5 sf**		**316,948 sf**	

Legal Description

Real Property in the City of Los Angeles, County of Los Angeles, State of California, described as follows:

Parcel 1:

That portion of Lot 1 of Tract No. 2209, in the City of Los Angeles, County of Los Angeles, State of California, as per map recorded in book 22 page 37 of Maps, in the Office of the County Recorder of said county, described as follows:

Beginning at the southwesterly corner of said Lot 1; thence easterly along the southerly line of said lot, a distance of 86 feet to the intersection thereof with a line parallel with and distant 14 feet westerly measured at right angles from the easterly line of said lot; thence north 00 degrees 13 minutes 50 seconds west along said parallel line, a distance of 28.70 feet; thence northwesterly and westerly along a tangent curve concave southwesterly and having a radius of 5.82 feet, through an angle of 95 degrees 13 minutes 12 seconds, an arc distance of 9.67 feet to a point of reverse curve; thence westerly along a tangent curve concave northerly and having a radius of 428 feet, through an angle of 05 degrees 14 minutes 53 seconds, an arc distance of 39.20 feet; thence tangent south 89 degrees 47 minutes 51 seconds west, a distance of 40.50 feet to a point on the westerly line of said lot, distant thereon 33.09 feet northerly from said southwesterly corner; thence southerly along said westerly line, a distance of 33.09 to the point of beginning.

Except therefrom all oil, gas and other minerals in and under said land, lying beneath a plane which is 500 feet below the surface of said land, but without the right of entry from the surface thereof, or from any point within 500 feet of said surface, reserved by Trangniew Inc., in deed recorded January 6, 1977 as instrument No. 77-16879.

Parcel 2:

Lot 3 of Tract No. 2209, in the City of Los Angeles, County of Los Angeles, State of California, as per map recorded in book 22 page 37 of Maps, in the Office of the County Recorder of said County.

Except therefrom any part contained within the lines of Vista Del Mar Avenue.

Parcel 3:

Lots 1, 3 and the north 17 feet of Lots 2 and 4 of Tract No. 10149, in the City of Los Angeles, County of Los Angeles, State of California, as per map recorded in book 163 pages 17 through 19 inclusive of Maps, in the Office of the County Recorder of said county.

Except that portion of Lots 1 and 3 as deeded to the State of California for road purposes, by deed recorded June 13, 1951 as instrument No. 3378, in book 36524 page 312 of official records.

Lot 5 of Tract No. 2209, in the City of Los Angeles, County of Los Angeles, State of California, as per map recorded in book 22 page 37 of Maps, in the Office of the County Recorder of said County.

The above described parcels are the same land described in North American Title Company amended preliminary title report number 1264869, dated October 21, 2013.

6220 West Yucca

6220 West Yucca Street, Los Angeles, California 90028

APN 5546-031-007, 5546-031-008, 5546-031-027, 5546-031-031

Champion Real Estate Company

Maximum Height

C2-2 - No height or story limit

R3-2 - 75 ft, 6 Stories

Proposed Height

Site A & B (Bldg. 1) = 255 ft to top of Parapet

Site C (Bldg. 2) = 52 ft to top of Roof, 3 Stories

Site A & B (Bldg. 1)

Setbacks Required / Provided

None for Commercial

Residential

Streets = None

Side = 5 ft + 1 ft for each story over 2nd, 16 ft Max.

Rear = N/A

Open Space Required = 22,650 sf

1 Bed - 99 Units x 100 sf = 9,900 sf

2 Bed - 88 Units x 125 sf = 11,000 sf

Suite -10 Units x 175 sf = 1,750 sf

Open Space Provided = 24,170 sf

Podium Courtyard = 10,770 sf

Gym = 2,530 sf

Roof Garden = 3,520 sf

Private Balconies (50 sf x 147 Units) = 7,350 sf

Parking Required = 448 Spaces

Residential = 344 Spaces

1 Bed - 99 Units x 1.5 Spaces = 148 Spaces

2 Bed - 88 Units x 2.0 Spaces = 176 Spaces

Suite - 10 Units x 2.0 Spaces = 20 Spaces

Commercial Parking Required = 25 Spaces

Commercial - 12,500 sf / 500 = 25 Spaces

Hotel Parking Required = 79 Spaces

1-30 Rooms = 30 Rooms x 1 Space = 30 Spaces

31-60 Rooms = 30 Rooms x 0.5 Space = 15 Spaces

Over 60 Rooms = 76 Rooms x 0.33 Space = 25 Spaces

Meeting Room = 4,600 sf / 500 = 9 Spaces

Reduction for Bike Parking Replacement = 33 Spaces

Residential = 33 Spaces (9.6% of required parking)

Parking Required after Reduction = 415 Spaces

Parking Provided = 415 Spaces

Bike Parking Replacement

33 Parking Spaces x 4 = 132 Bike Parking Spaces

	Commercial	Restaurant	Hotel	Residential Site A & B (Bldg. 1)	Residential Site C (Bldg. 2)
NRSF	3,450 sf	9,050 sf	57,740 sf	185,700 sf	12,050 sf
Gross SF	3,450 sf	9,050 sf	80,335 sf	223,590 sf	16,860 sf
Efficiency			71.9%	83.0%	71.5%

	Site A & B (Bldg. 1)	Site C (Bldg. 2)
# Parking	415 Spaces	21 Spaces
Gross Parking SF	176,770 sf	13,610 sf

Site C (Bldg. 2)

Setbacks Required / Provided

Front = 15 ft

Side = 5 ft + 1 ft for each story over 2nd = 6 ft

Rear = N/A

Open Space Required = 1,500 sf

1 Bed - 5 Units x 100 sf = 500 sf

2 Bed - 8 Units x 125 sf = 1,000 sf

Open Space Provided = 1,500 sf

Amenities = 375 sf (max. 25% of required open space)

Roof Garden= 875 sf

Private Balconies (50 sf x 5 Units) = 250 sf

Parking Required = 23 Spaces

1 Bed - 5 Units x 1.5 Spaces = 7 Spaces

2 Bed - 8 Units x 2.0 Spaces = 16 Spaces

Reduction for Bike Parking Replacement = 3 Spaces

Residential = 23 Spaces x 0.15 = 3 Spaces

Parking Required after Reduction = 20 Spaces

Parking Provided = 21 Spaces

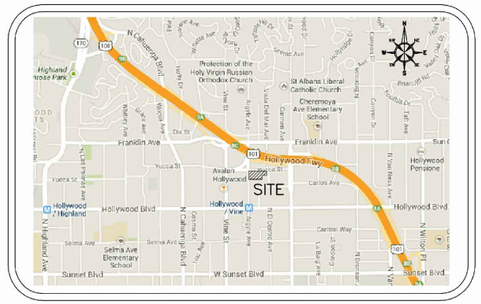
Bike Parking Replacement

3 Parking Spaces x 4 =12 Bike Parking Spaces

March 31, 2017

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VICINITY MAP

MISCELLANEOUS NOTES

(N1) THE BASIS OF BEARINGS OF THIS SURVEY IS BASED ON THE CENTERLINE OF ARGYLE AVENUE AS SHOWN ON TRACT NO. 67429-01 RECORDED IN BOOK 1369, PAGES 53 THROUGH 69 OF MAPS, RECORDS OF LOS ANGELES COUNTY, BEING HELD AS NORTH 00°09'10" WEST AS SHOWN ON SAID MAP.

(N2) THE TABLE BELOW DESCRIBES THE TYPE AND NUMBER OF PARKING STALLS ENTIRELY WITHIN PROPERTY BOUNDARY. STALLS THAT ARE PARTIALLY WITHIN BOUNDARY ARE LISTED UNDER THE HEADING "PARTIAL". PARTIAL STALLS ARE NOT COUNTED IN THE TOTAL

PARKING				
REGULAR	HANDICAP	BUS	PARTIAL	TOTAL
43	0	0	0	43

(N3) DURING OUR FIELD SITE VISIT, THERE WAS NOT OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.

(N4) THERE WAS NOT ANY CHANGES IN STREET RIGHT-OF-WAY LINES EITHER COMPLETED OR PROPOSED, AND AVAILABLE FROM CONTROLLING JURISDICTION OR EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION REPAIRS.

(N5) DURING OUR FIELD SITE VISIT, THERE WAS NOT OBSERVABLE EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP, OR SANITARY LANDFILL

(N6) THE PROPERTY IS LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF ARGYLE AVENUE AND YUCCA STREET.

ZONING INFORMATION

LISTED BELOW ARE SETBACK, HEIGHT, AND FLOOR SPACE AREA RESTRICTIONS AS DISCLOSED BY APPLICABLE ZONING OR BUILDING CODES (BEYOND THOSE REQUIRED UNDER PARAGRAPH 5d OF THE ALTA STANDARDS) UNLESS "NONE" IS STATED BELOW. THE SOURCE OF THIS INFORMATION IS THE CITY OF LOS ANGELES NAVIGATE LA WEBSITE AND CITY OF LOS ANGELES GENERALIZED SUMMARY OF ZONING REGULATIONS.

THE PROPERTY DESCRIBED HEREON LIES WITHIN SEVERAL DIFFERENT ZONING CLASSIFICATIONS AS FOLLOWS:

LOTS 1 AND 3 OF TRACT NO. 2209 ARE ZONED [Q]R3-1XL (MULTIPLE DWELLING-HEIGHT DISTRICT 1XL).*

GENERAL DEVELOPMENT STANDARDS FOR THE R3-1XL ZONE ARE AS FOLLOWS:

1. MAXIMUM BUILDING HEIGHT – 30 FEET/2 STORIES
2. MINIMUM FRONT YARD – 15 FEET; 10 FEET FOR KEY LOTS
3. MINIMUM SIDE YARD – 10% OF LOT WIDTH FOR LOTS LESS THAN 50 FEET (3 FEET MINIMUM); 5 FEET PLUS 1 FOOT FOR EACH STORY OVER 2ND (16 FEET MAXIMUM).
4. MINIMUM REAR YARD – 15 FEET
5. MINIMUM LOT AREA – 5,000 SQ. FT.
6. MINIMUM AREA PER DWELLING UNIT – 800 SQ. FT. (500 SQ. FT. PER GUEST ROOM)
7. MINIMUM LOT WIDTH – 50 FEET
8. FLOOR AREA RATIO – 3:1 FAR

*NOTE THAT THE [Q] IN FRONT OF THE ZONING CLASSIFICATION INDICATES THAT THERE ARE RESTRICTIONS ON THE PROPERTY AS A RESULT OF A ZONE CHANGE, TO ENSURE COMPATIBILITY WITH SURROUNDING PROPERTY.

LOT 1 OF TRACT NO. 10149 IS ZONED R4-2D (MULTIPLE DWELLING-HEIGHT DISTRICT 2 WITH DEVELOPMENT LIMITATION).**

GENERAL DEVELOPMENT STANDARDS FOR THE R4-2 ZONE ARE AS FOLLOWS:

1. MAXIMUM BUILDING HEIGHT – NONE
2. MINIMUM FRONT YARD – 15 FEET;10 FEET FOR KEY LOTS
3. MINIMUM SIDE YARD – 10% OF LOT WIDTH FOR LOTS LESS THAN 50 FEET (3 FEET MINIMUM); 5 FEET PLUS 1 FOOT FOR EACH STORY OVER 2ND (16.00 FEET MAXIMUM).
4. MINIMUM REAR YARD – 15 FEET PLUS 1 FOOT FOR EACH STORY OVER THIRD (20 FEET MAXIMUM).
5. MINIMUM LOT AREA – 5,000 SQ. FT.
6. MINIMUM AREA PER DWELLING UNIT – 400 SQ. FT. (200 SQ. FT. PER GUEST ROOM)
7. MINIMUM LOT WIDTH – 50 FEET
8. FLOOR AREA RATIO – 6:1 FAR

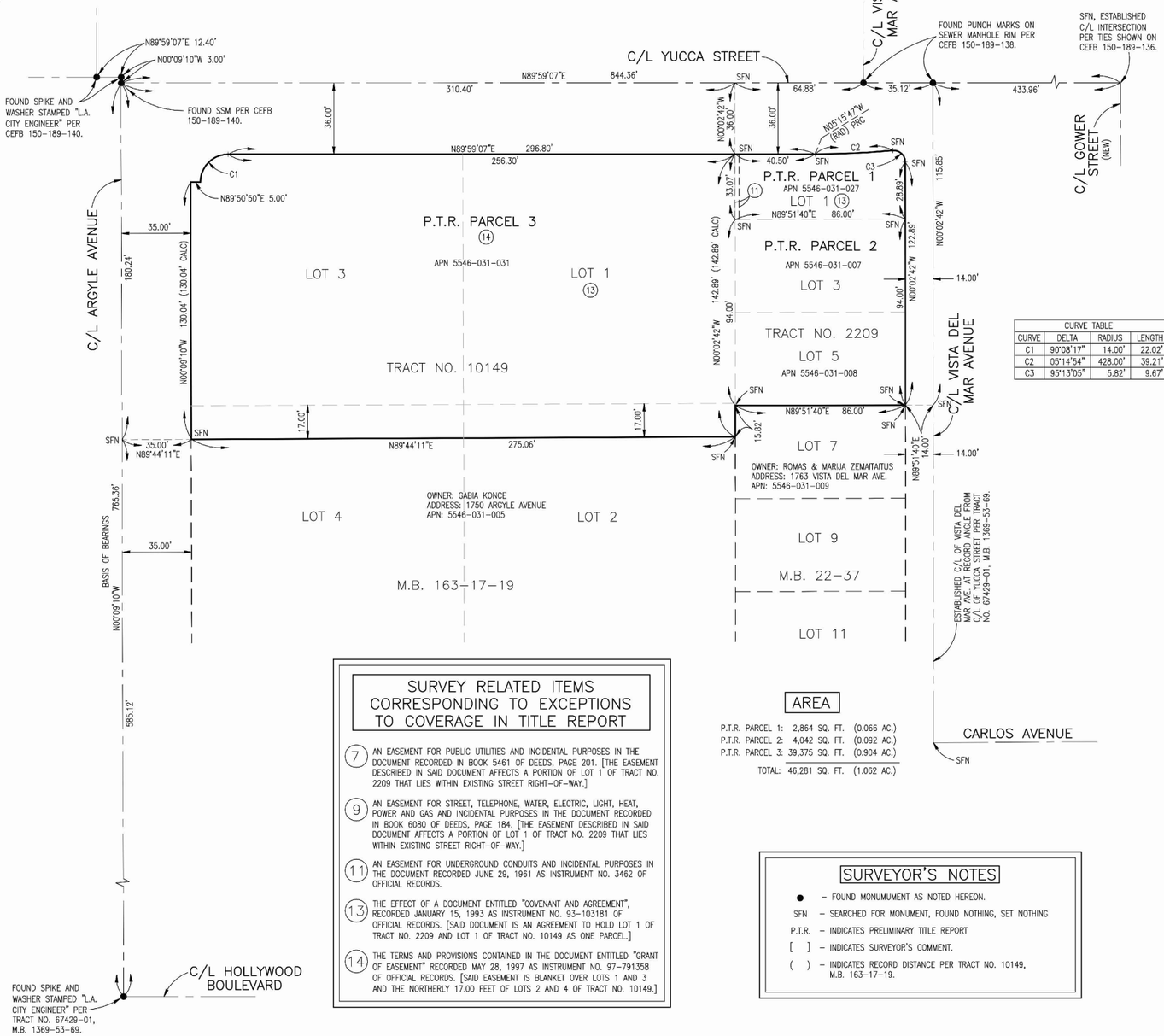
LOT 3 OF TRACT NO. 10149 IS ZONED C4-2D-SN (COMMERCIAL-HEIGHT DISTRICT 2 WITH DEVELOPMENT LIMITATION-SIGN SUPPLEMENTAL USE DISTRICT).**

GENERAL DEVELOPMENT STANDARDS FOR THE C4-2 ZONE ARE AS FOLLOWS:

1. MAXIMUM BUILDING HEIGHT – NONE
2. MINIMUM FRONT YARD – NONE
3. MINIMUM SIDE YARD
   - FOR COMMERCIAL PURPOSES: NONE
   - FOR RESIDENTIAL PURPOSES; 10% OF LOT WIDTH FOR LOTS LESS THAN 50 FEET (3 FEET MINIMUM); 5 FEET PLUS 1 FOOT FOR EACH STORY OVER 2ND (16.00 FEET MAXIMUM) AT LOWEST RESIDENTIAL STORY
4. MINIMUM REAR YARD
   - FOR COMMERCIAL PURPOSES: NONE
   - FOR RESIDENTIAL PURPOSES: 15 FEET PLUS 1 FOOT FOR EACH STORY OVER THIRD (20.00 FEET MAXIMUM) AT LOWEST RESIDENTIAL STORY
5. MINIMUM LOT AREA
   - FOR COMMERCIAL PURPOSES: NONE
   - FOR RESIDENTIAL PURPOSES: 5,000 SQ. FT.
6. MINIMUM AREA PER DWELLING UNIT
   - FOR COMMERCIAL USES: NONE
   - FOR RESIDENTIAL USES: 400 SQ. FT. (200 SQ. FT. PER GUEST ROOM)
7. MINIMUM LOT WIDTH
   - FOR COMMERCIAL USES: NONE
   - FOR RESIDENTIAL PURPOSES: 50 FEET
8. FLOOR AREA RATIO – 6:1 FAR

**NOTE THAT THE "D" AFTER THE HEIGHT DISTRICT DESIGNATION INDICATES THERE ARE HEIGHT, FLOOR AREA RATIO, PERCENT OF LOT COVERAGE AND BUILDING SETBACK RESTRICTIONS ON THE PROPERTY.

[ALL THE PROPERTIES LISTED ABOVE HAVE DEVELOPMENT STANDARDS BEYOND WHAT ARE CALLED FOR IN THE GENERAL ZONING REGULATIONS. FOR THE EXACT DEVELOPMENT STANDARDS AFFECTING THESE PROPERTIES THE LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY SHOULD BE CONSULTED.]



CURVE TABLE			
CURVE	DELTA	RADIUS	LENGTH
C1	90°08'17"	14.00'	22.02'
C2	05°14'54"	428.00'	39.21'
C3	95°13'05"	5.82'	9.67'

SURVEY RELATED ITEMS CORRESPONDING TO EXCEPTIONS TO COVERAGE IN TITLE REPORT

(7) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED IN BOOK 5461 OF DEEDS, PAGE 201. [THE EASEMENT DESCRIBED IN SAID DOCUMENT AFFECTS A PORTION OF LOT 1 OF TRACT NO. 2209 THAT LIES WITHIN EXISTING STREET RIGHT-OF-WAY.]

(9) AN EASEMENT FOR STREET, TELEPHONE, WATER, ELECTRIC, LIGHT, HEAT, POWER AND GAS AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED IN BOOK 6080 OF DEEDS, PAGE 184. [THE EASEMENT DESCRIBED IN SAID DOCUMENT AFFECTS A PORTION OF LOT 1 OF TRACT NO. 2209 THAT LIES WITHIN EXISTING STREET RIGHT-OF-WAY.]

(11) AN EASEMENT FOR UNDERGROUND CONDUITS AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 29, 1961 AS INSTRUMENT NO. 3462 OF OFFICIAL RECORDS.

(13) THE EFFECT OF A DOCUMENT ENTITLED "COVENANT AND AGREEMENT", RECORDED JANUARY 15, 1993 AS INSTRUMENT NO. 93-103181 OF OFFICIAL RECORDS. [SAID DOCUMENT IS AN AGREEMENT TO HOLD LOT 1 OF TRACT NO. 2209 AND LOT 1 OF TRACT NO. 10149 AS ONE PARCEL.]

(14) THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "GRANT OF EASEMENT" RECORDED MAY 28, 1997 AS INSTRUMENT NO. 97-791358 OF OFFICIAL RECORDS. [SAID EASEMENT IS BLANKET OVER LOTS 1 AND 3 AND THE NORTHERLY 17.00 FEET OF LOTS 2 AND 4 OF TRACT NO. 10149.]

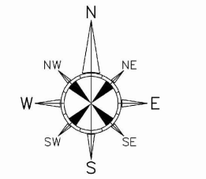
AREA

P.T.R. PARCEL 1: 2,864 SQ. FT. (0.066 AC.)
P.T.R. PARCEL 2: 4,042 SQ. FT. (0.092 AC.)
P.T.R. PARCEL 3: 39,375 SQ. FT. (0.904 AC.)

TOTAL: 46,281 SQ. FT. (1.062 AC.)

SURVEYOR'S NOTES

- ● – FOUND MONUMUMENT AS NOTED HEREON.
- SFN – SEARCHED FOR MONUMENT, FOUND NOTHING, SET NOTHING
- P.T.R. – INDICATES PRELIMINARY TITLE REPORT
- [ ] – INDICATES SURVEYOR'S COMMENT.
- ( ) – INDICATES RECORD DISTANCE PER TRACT NO. 10149, M.B. 163-17-19.





TITLE REPORT LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1:

THAT PORTION OF LOT 1 OF TRACT NO. 2209, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 22 PAGE 37 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWESTERLY CORNER OF SAID LOT 1; THENCE EASTERLY ALONG THE SOUTHERLY LINE OF SAID LOT, A DISTANCE OF 86 FEET TO THE INTERSECTION THEREOF WITH A LINE PARALLEL WITH AND DISTANT 14 FEET WESTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT; THENCE NORTH 00 DEGREES 13 MINUTES 50 SECONDS WEST ALONG SAID PARALLEL LINE, A DISTANCE OF 28.70 FEET; THENCE NORTHWESTERLY AND WESTERLY ALONG A TANGENT CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5.82 FEET, THROUGH AN ANGLE OF 95 DEGREES 13 MINUTES 12 SECONDS, A ARC DISTANCE OF 9.67 FEET TO A POINT OF REVERSE CURVE; THENCE WESTERLY ALONG A TANGENT CURVE CONCAVE NORTHERLY AND HAVING A RADIUS OF 428 FEET, THROUGH AN ANGLE OF 05 DEGREES 14 MINUTES 53 SECONDS, AN ARC DISTANCE OF 39.20 FEET; THENCE TANGENT SOUTH 89 DEGREES 47 MINUTES 51 SECONDS WEST, A DISTANCE OF 40.50 FEET TO A POINT ON THE WESTERLY LINE OF SAID LOT, DISTANT THEREON 33.09 FEET NORTHERLY FROM SAID SOUTHWESTERLY CORNER; THENCE SOUTHERLY ALONG SAID WESTERLY LINE, A DISTANCE OF 33.09 TO THE POINT OF BEGINNING.

EXCEPT THEREFROM ALL OIL, GAS AND OTHER MINERALS IN AND UNDER SAID LAND, LYING BENEATH A PLANE WHICH IS 500 FEET BELOW THE SURFACE OF SAID LAND, BUT WITHOUT THE RIGHT OF ENTRY FROM THE SURFACE THEREOF, OR FROM ANY POINT WITHIN 500 FEET OF SAID SURFACE, RESERVED BY TRANGNIEW INC., IN DEED RECORDED JANUARY 6, 1977 AS INSTRUMENT NO. 77-16879.

PARCEL 2:

LOT 3 OF TRACT NO. 2209, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 22 PAGE 37 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM ANY PART CONTAINED WITHIN THE LINES OF VISTA DEL MAR AVENUE.

PARCEL 3:

LOTS 1, 3 AND THE NORTH 17 FEET OF LOTS 2 AND 4 OF TRACT NO. 10149, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 163 PAGES 17 THROUGH 19 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THAT PORTION OF LOTS 1 AND 3 AS DEEDED TO THE STATE OF CALIFORNIA FOR ROAD PURPOSES, BY DEED RECORDED JUNE 13, 1951 AS INSTRUMENT NO. 3378, IN BOOK 36524 PAGE 312 OF OFFICIAL RECORDS.

LOT 5 OF TRACT NO. 2209, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 22 PAGE 37 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

THE ABOVE DESCRIBED PARCELS ARE THE SAME LAND DESCRIBED IN NORTH AMERICAN TITLE COMPANY AMENDED PRELIMINARY TITLE REPORT NUMBER 1264869, DATED OCTOBER 21, 2013.

UTILITY NOTE

THE LOCATIONS OF UTILITIES ARE SHOWN HEREON BY OBSERVED EVIDENCE ONLY.

FLOOD ZONE

A FIELD SURVEY WAS NOT CONDUCTED TO DETERMINE THE FLOOD ZONE AREAS. ANY FLOOD ZONE LINES DISTINGUISHING BETWEEN FLOOD AREAS ARE GRAPHICALLY PLOTTED FROM FEMA FLOOD INSURANCE RATE MAPS (FIRM). A FLOOD ELEVATION CERTIFICATE MAY BE NEEDED TO DETERMINE OR VERIFY THE LOCATION OF THE FLOOD AREAS. THE SUBJECT PROPERTY'S COMMUNITY DOES PARTICIPATE IN THE PROGRAM. IT IS DETERMINED THAT THE SUBJECT PROPERTY RESIDES IN THE FOLLOWING FLOOD ZONE "X" AS DETERMINED BY OR SHOWN BY FIRM COMMUNITY PANEL NO. 0601371605F (CITY OF LOS ANGELES) DATED SEPTEMBER 26, 2008 AND IS NOT IN A FLOOD ZONE AREA.

ALTA/ACSM LAND TITLE SURVEY

FOR

6220 WEST YUCCA STREET
LOS ANGELES, CALIFORNIA 90028

PARTNER PROJECT NUMBER 13-113112.2

ALTA SURVEY BASED AND RELIED ON NORTH AMERICAN TITLE COMPANY AMENDED PRELIMINARY TITLE REPORT NUMBER 1264869, CONTAINING AN EFFECTIVE DATE OF OCTOBER 21, 2013 AND TIME OF 7:30 A.M.

CERTIFICATION

TO CHAMPION REAL ESTATE COMPANY AND NORTH AMERICAN TITLE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 6b, 7a, 7b1, 7c, 8, 9, 11a, 13, 14, 16, 17 AND 18 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON DECEMBER 10, 2013.

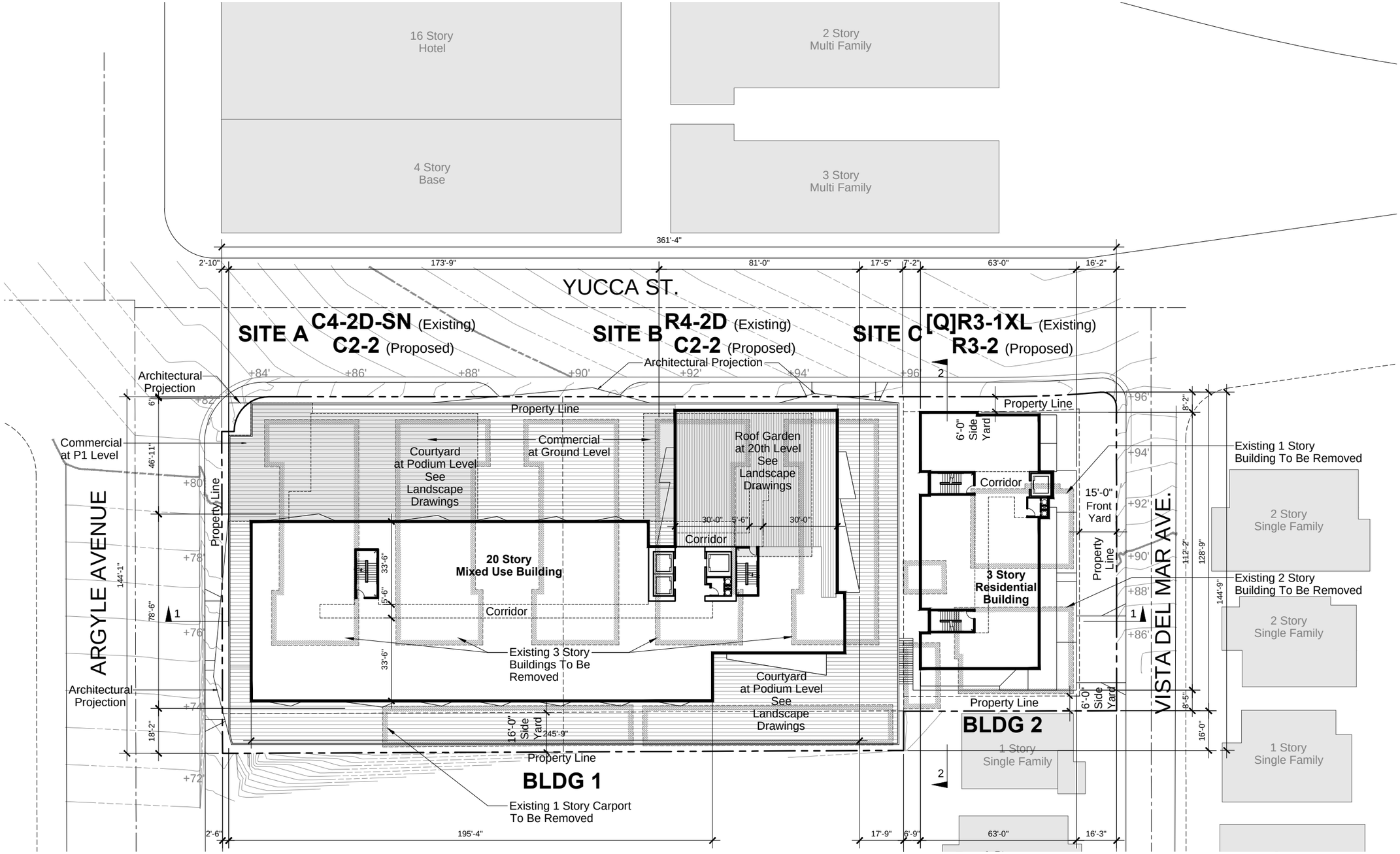
DATE OF PLAT OR MAP: DECEMBER 17, 2013

SURVEYOR: CHRISTOPHER W. DANIELS
REGISTRATION NUMBER: 6328
STATE OF REGISTRATION: CALIFORNIA
FIELD DATE OF SURVEY: 12/10/2013
LATEST REVISION DATE: N/A



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cdaniels@partneresi.com



Plot Plan

6220 West Yucca

6220 West Yucca Street, Los Angeles, California 90028

APN 5546-031-007, 5546-031-008, 5546-031-027, 5546-031-031

Champion Real Estate Company

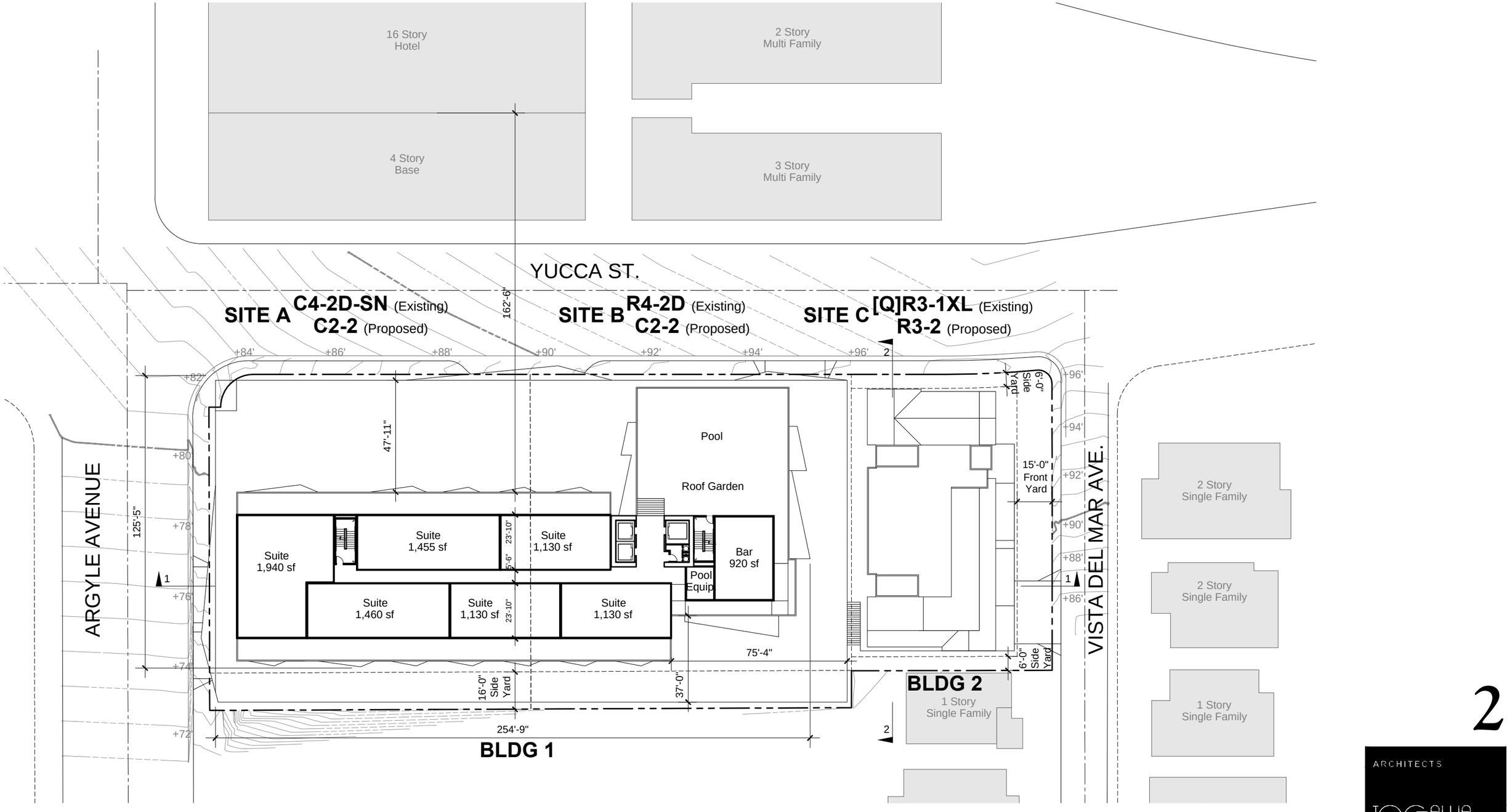
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20th Level Plan

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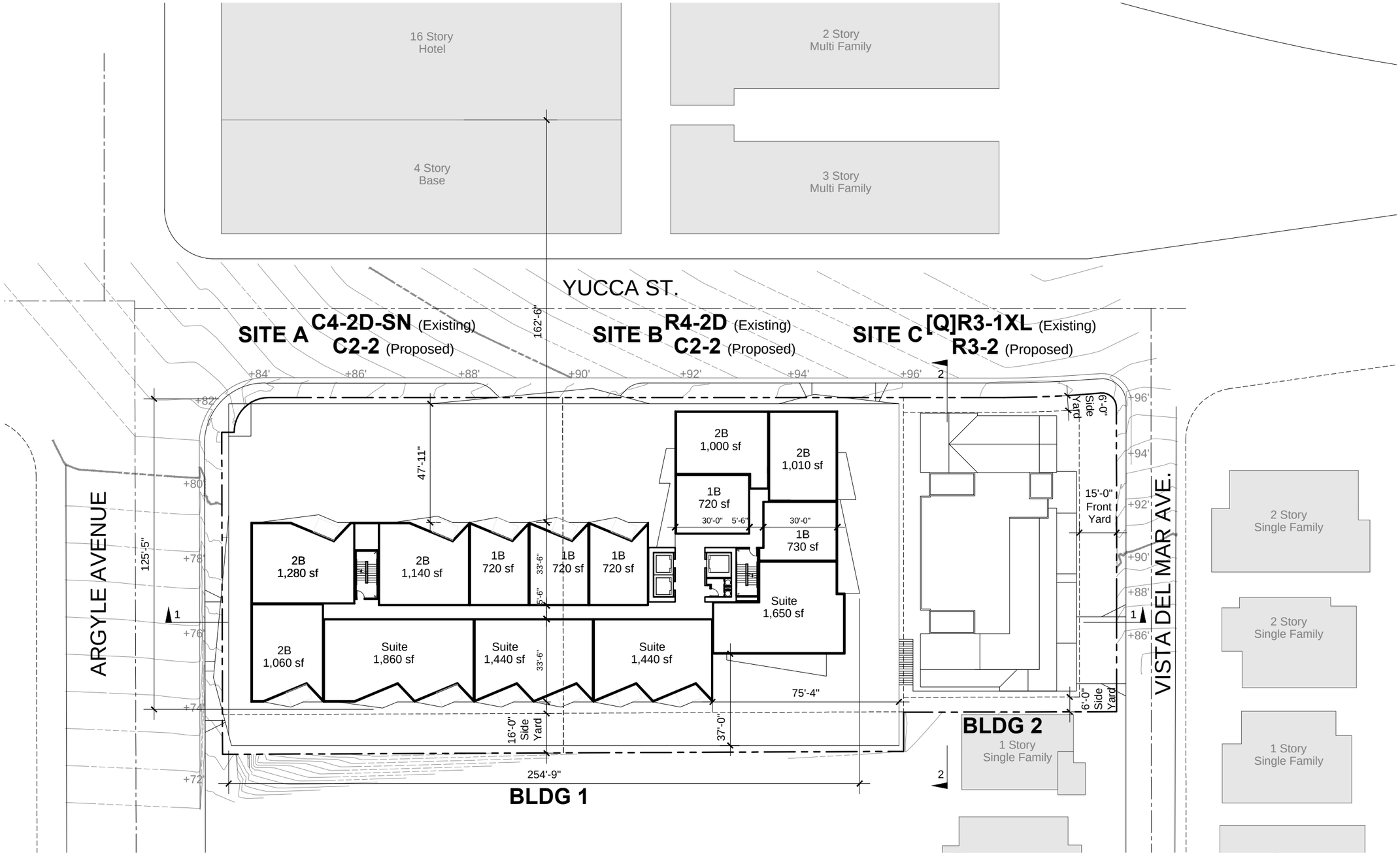
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19th Level Plan

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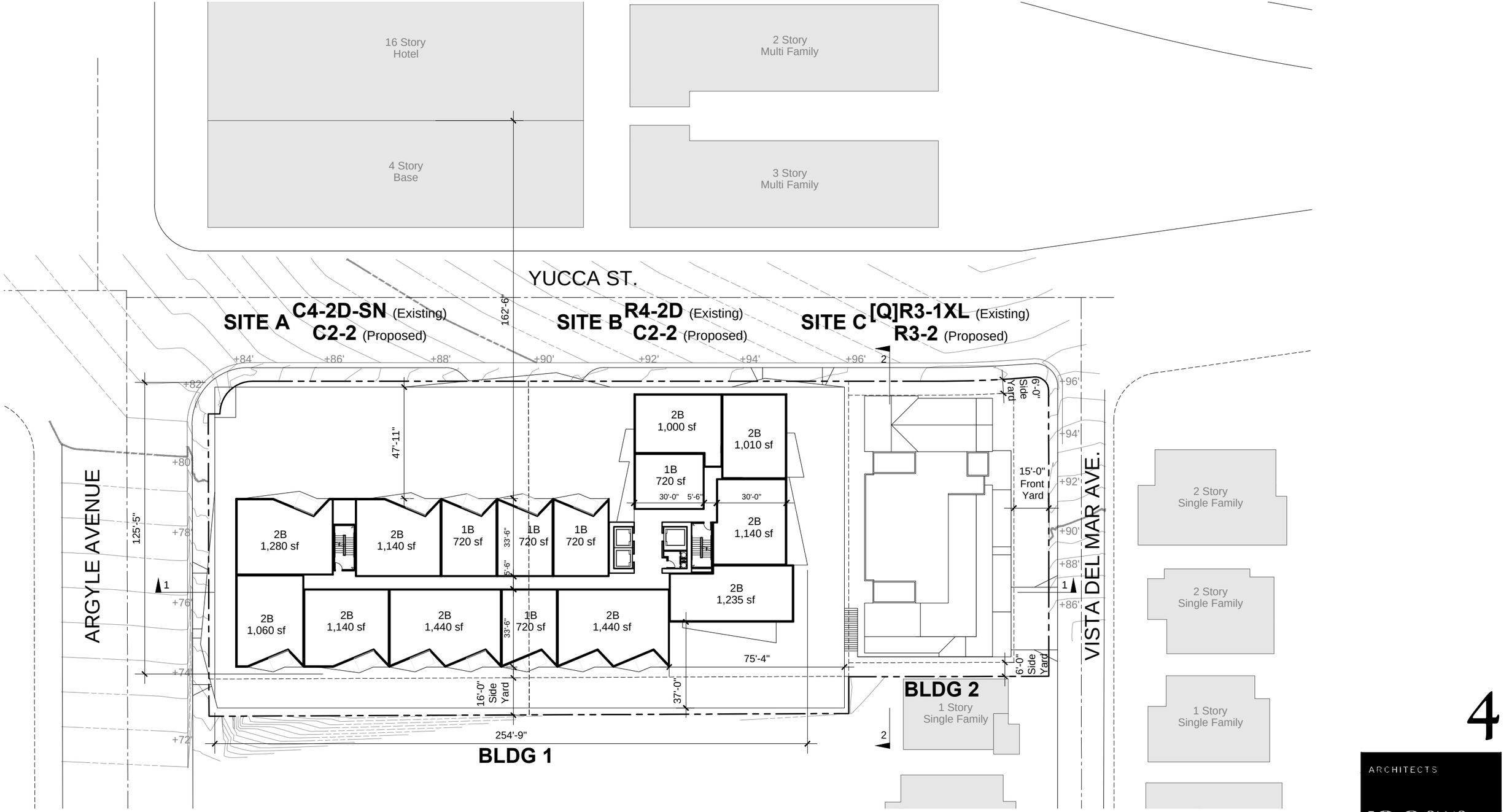
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18th Level Plan

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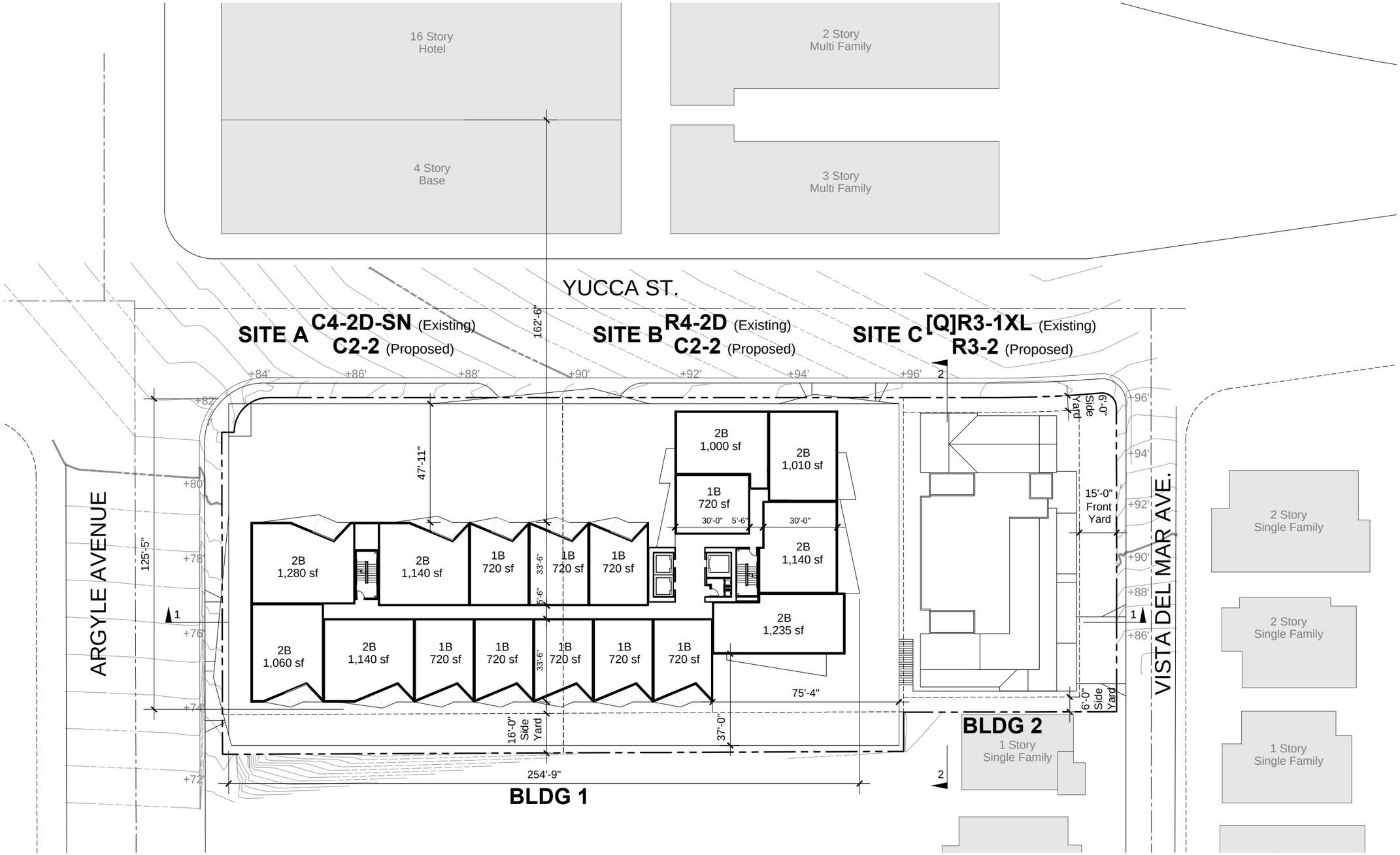
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9th - 17th Level Plan

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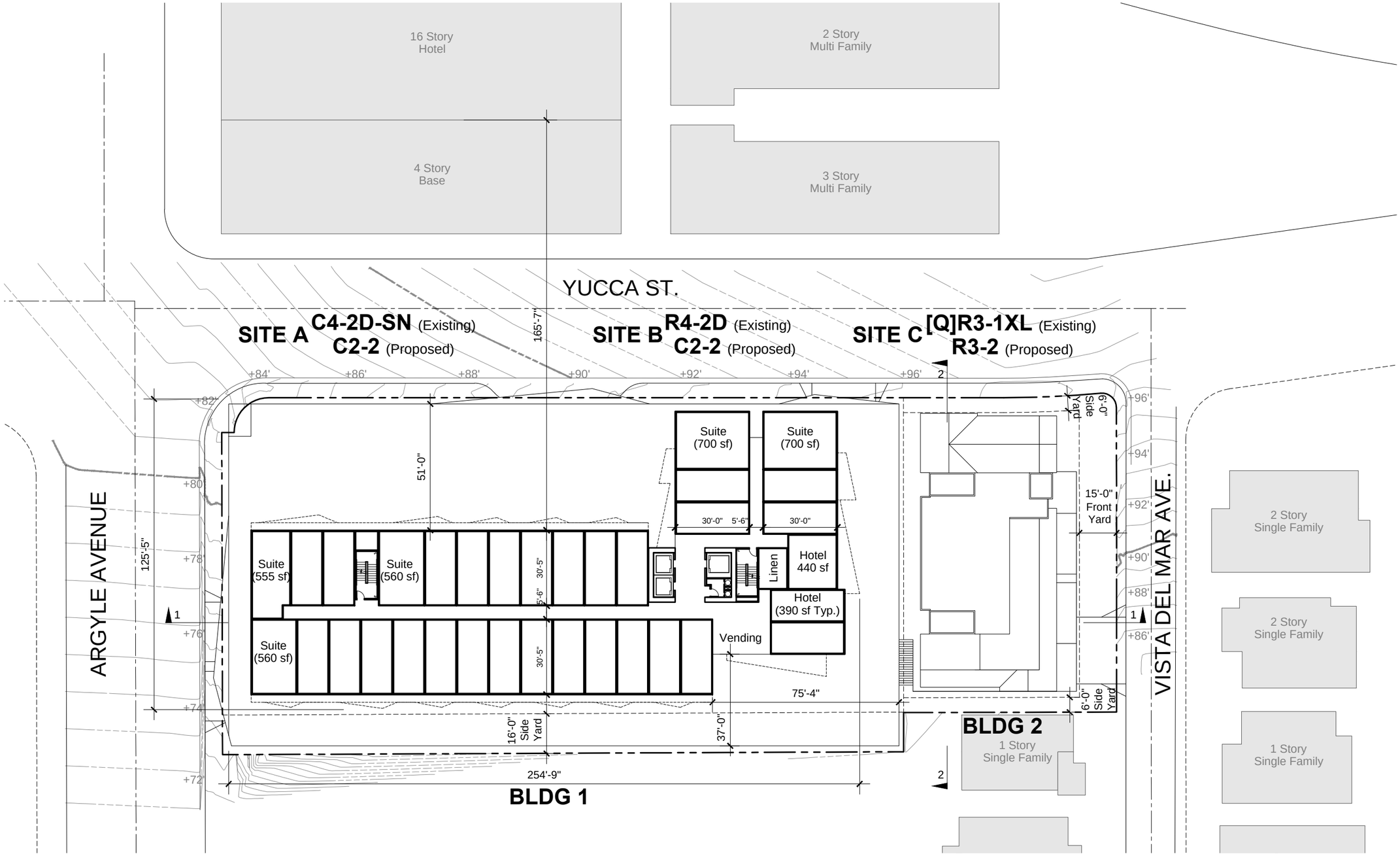
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5th - 8th Level Plan

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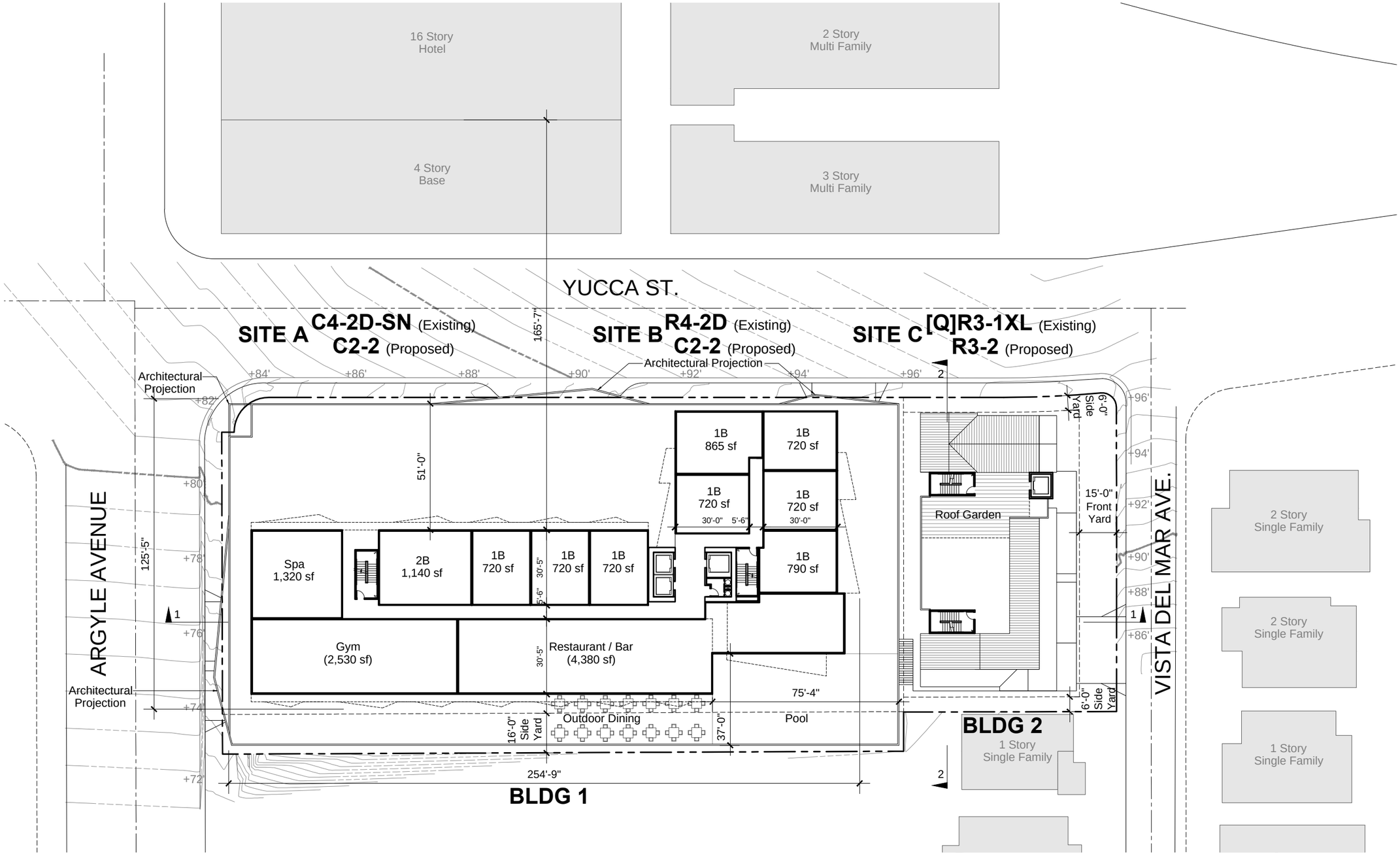
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4th Level Plan

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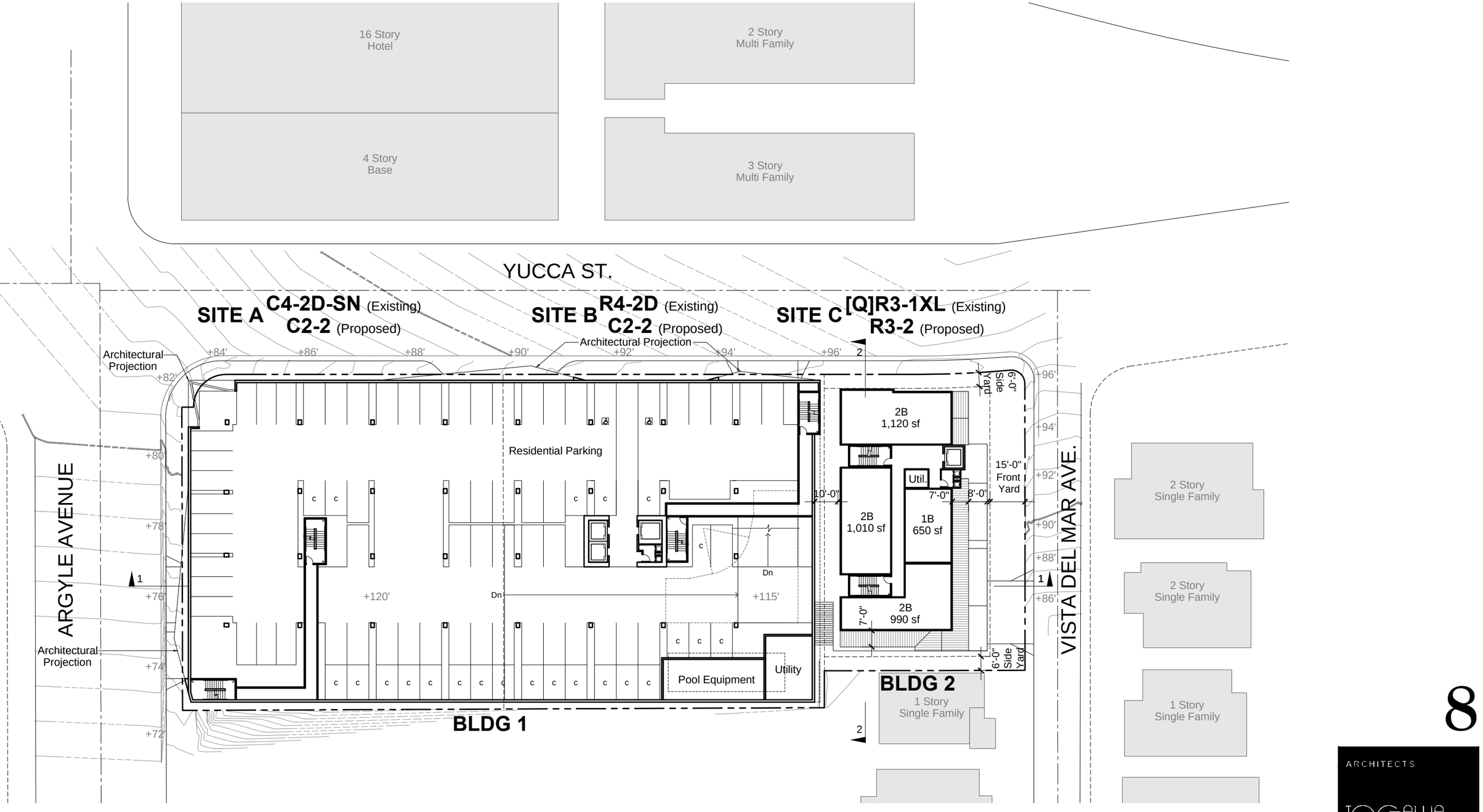
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3rd Level Plan

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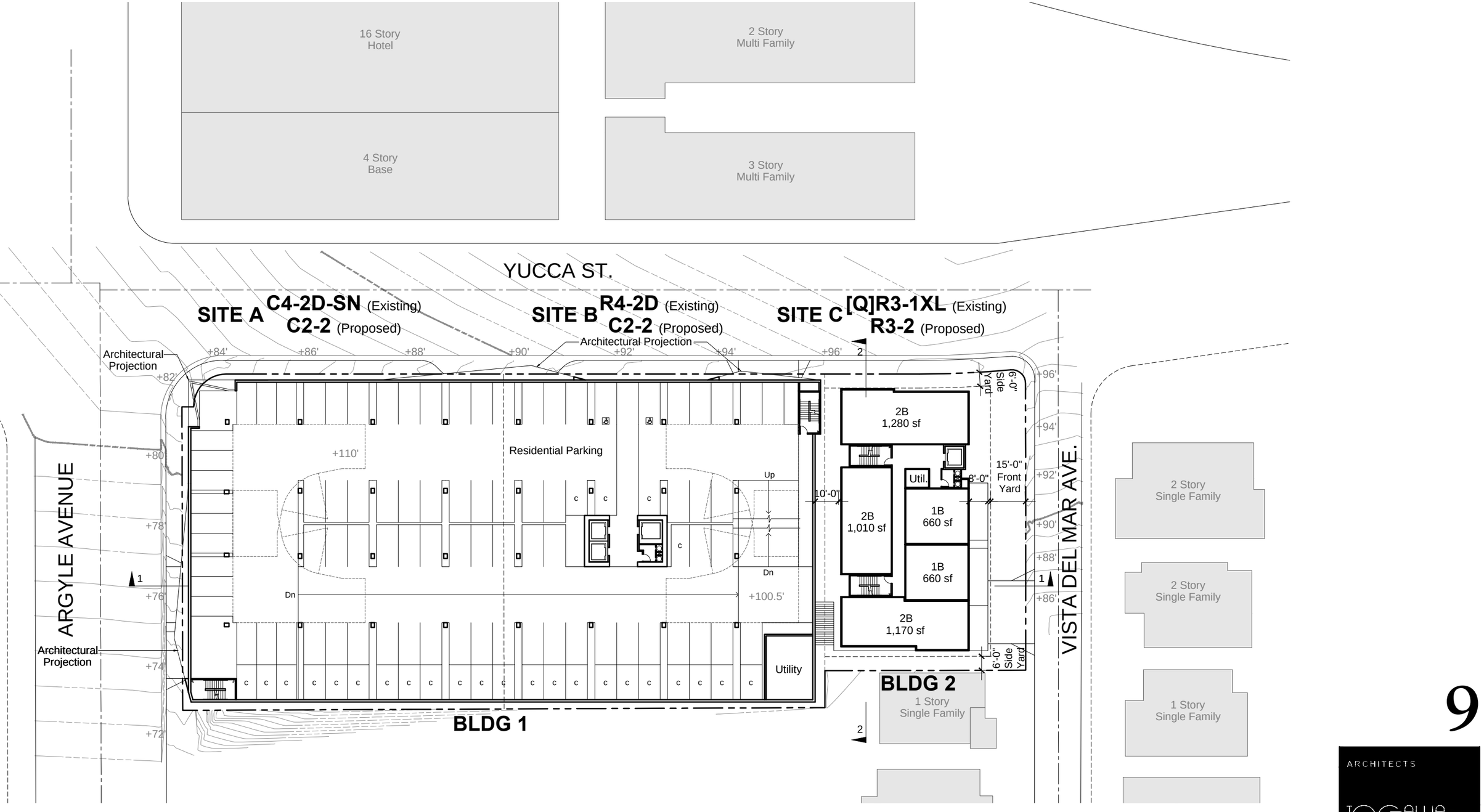
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2nd Level Plan

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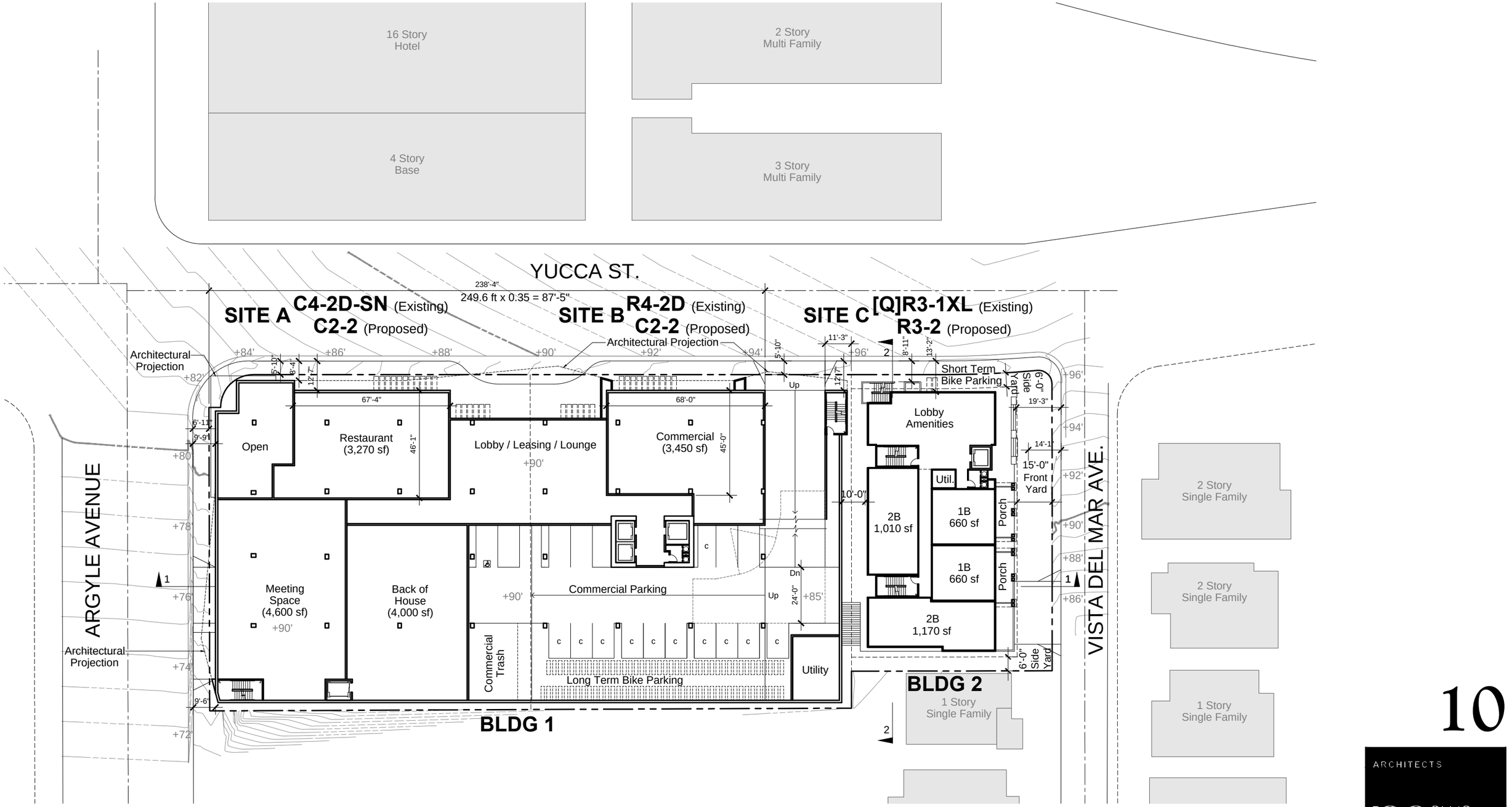
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1st Level Plan

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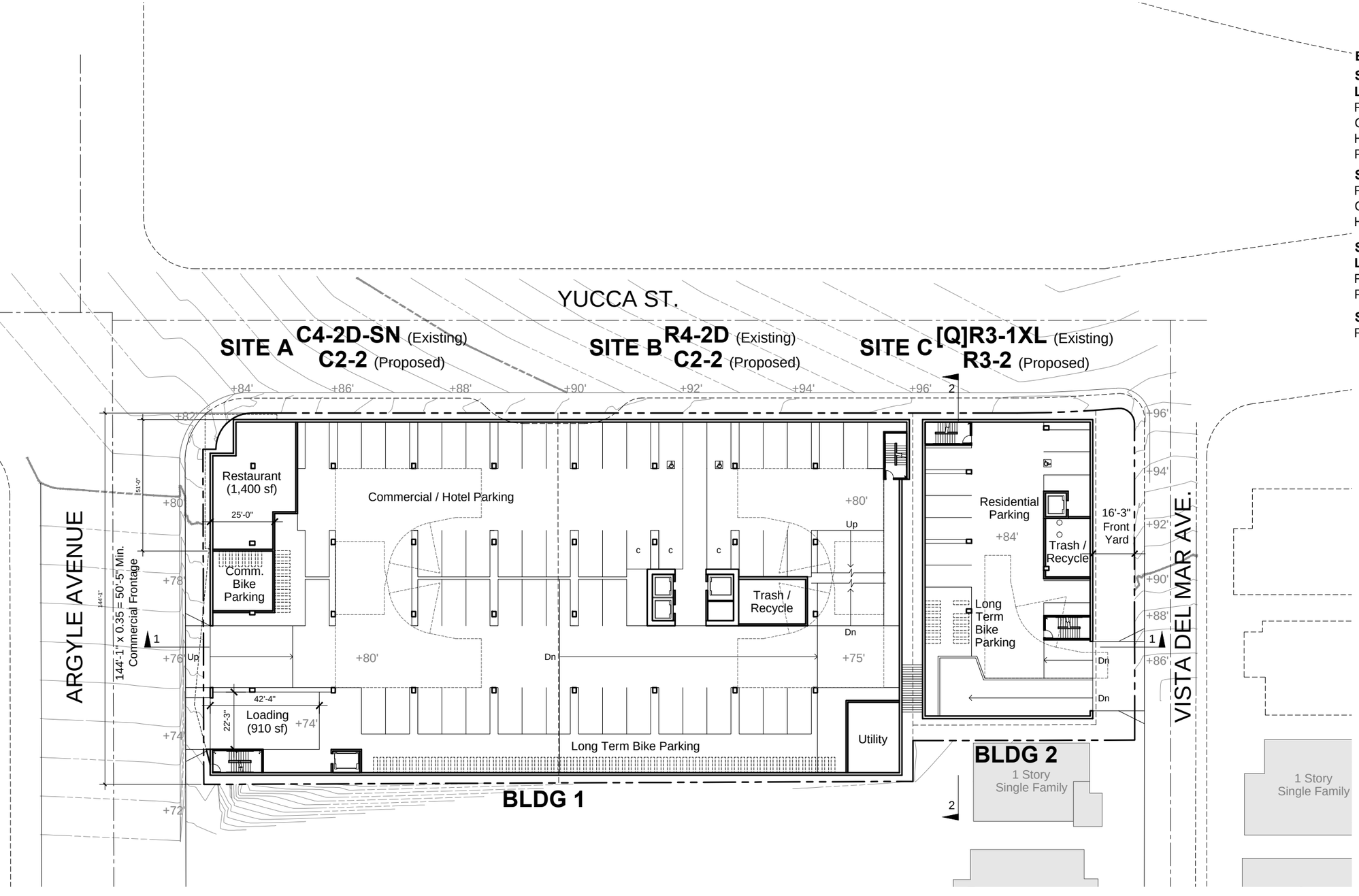
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Bike Parking Required / Provided

Site A & B (Bldg. 1)
Long Term = 342 Spaces
Residential = 197 Units x 1 Space = 197 Spaces
Commercial = 12,500 sf / 2,000 = 6 Spaces
Hotel = 136 Rooms / 20 = 7 Spaces
Parking Replacement = 132 Spaces

Short Term = 33 Spaces
Residential = 197 Units x 0.1 Space = 20 Spaces
Commercial = 12,500 sf / 2,000 = 6 Spaces
Hotel = 136 Rooms / 20 = 7 Spaces

Site C (Bldg. 2)
Long Term = 25 Spaces
Residential = 13 Units x 1 Space = 13 Spaces
Parking Replacement = 12 Spaces

Short Term = 2 Spaces
Residential = 13 Units x 0.1 Space = 2 Spaces

Site A & B (Bldg. 1)

Level	# Parking	# Bike Parking
3rd	85 Spaces	-
2nd	106 Spaces	-
Ground	17 Spaces	198 Spaces
P1	61 Spaces	177 Spaces
P2	91 Spaces	-
P3	55 Spaces	-
Total	**415 Spaces**	**375 Spaces**

Site C (Bldg. 2)

Level	# Parking	# Bike Parking
G	-	2 Spaces
P1	9 Spaces	25 Spaces
P2	12 Spaces	-
Total	**21 Spaces**	**27 Spaces**

P1 Level Plan

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APN 5546-031-007, 5546-031-008, 5546-031-027, 5546-031-031

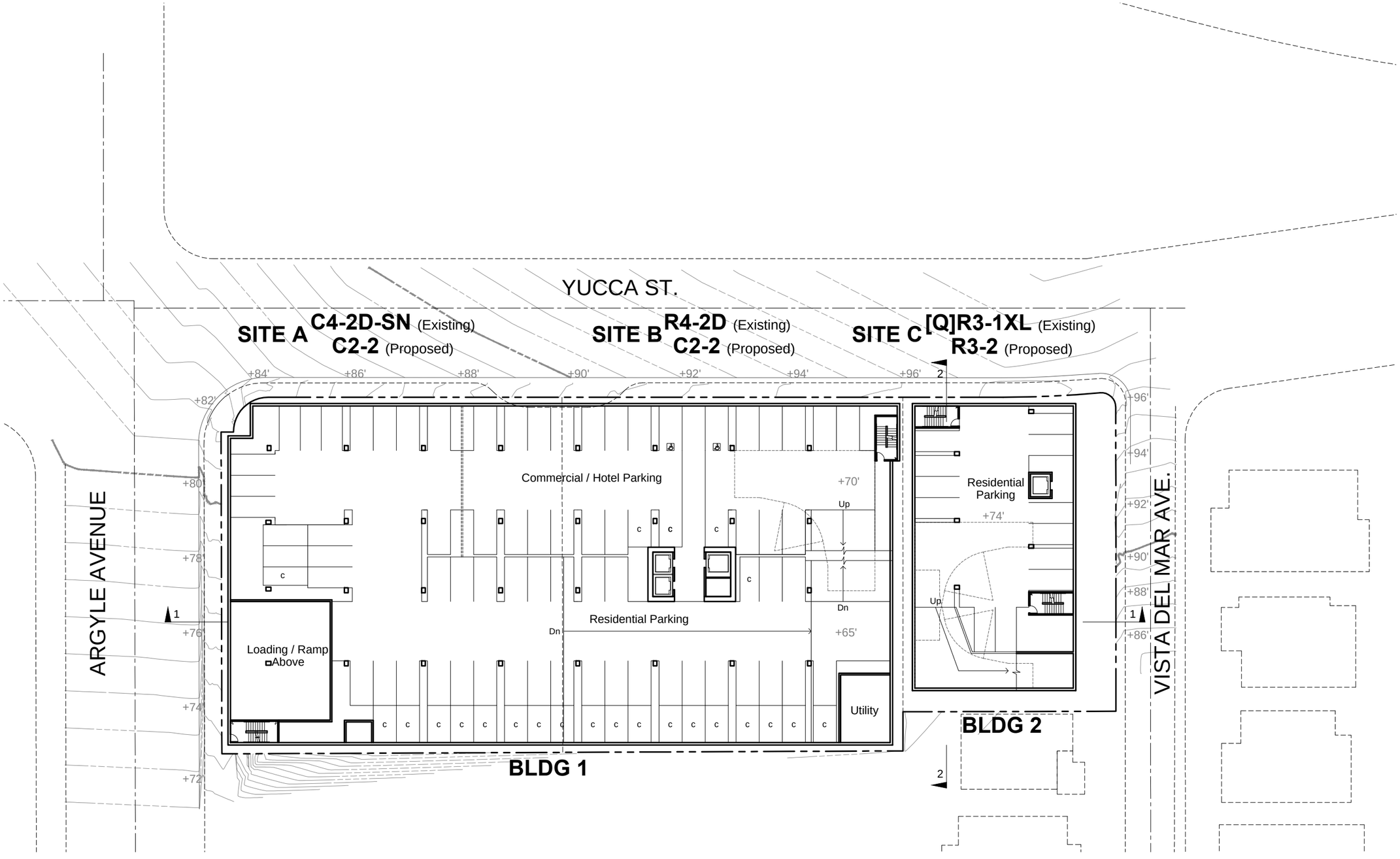
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P2 Level Plan

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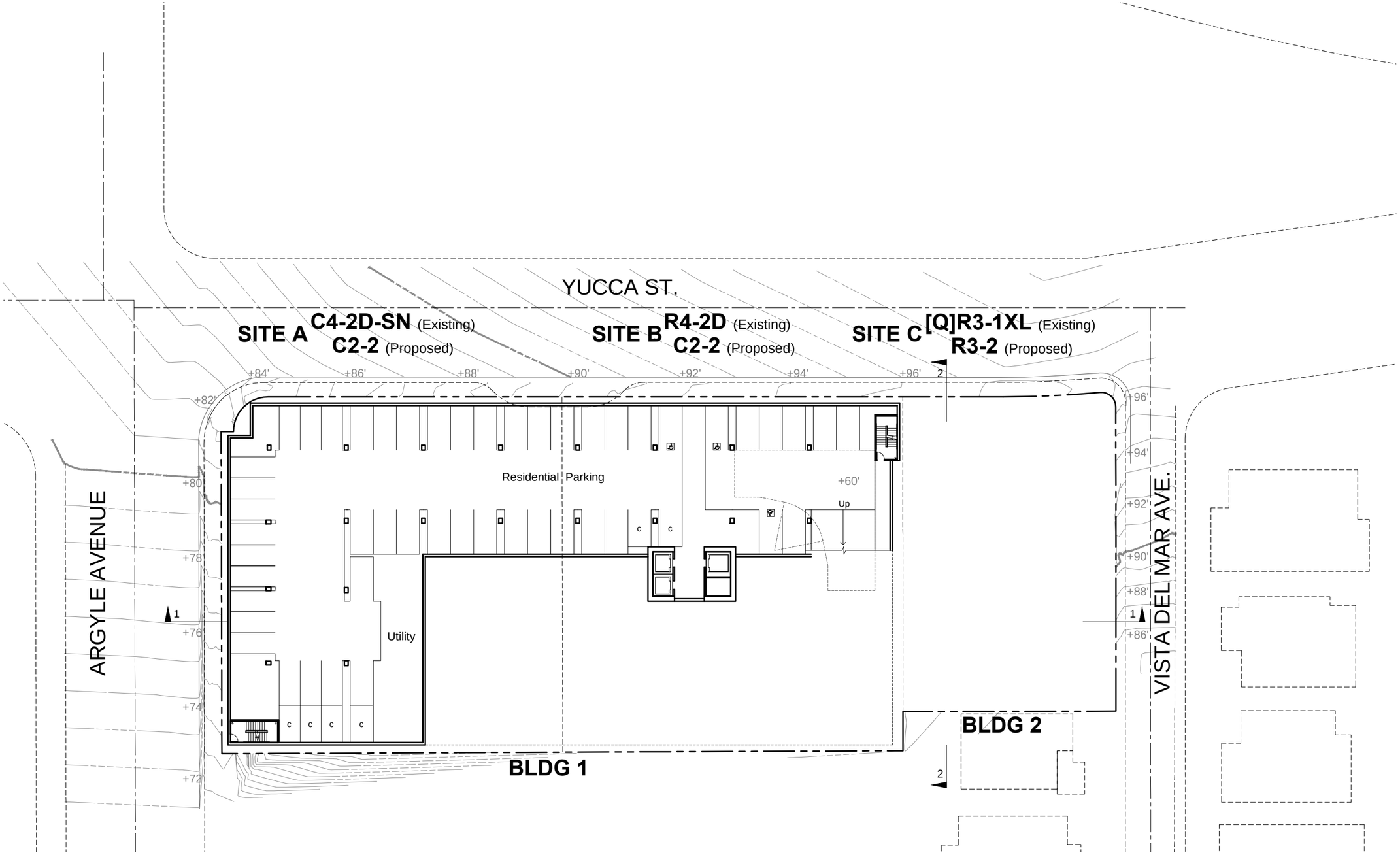
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P3 Level Plan

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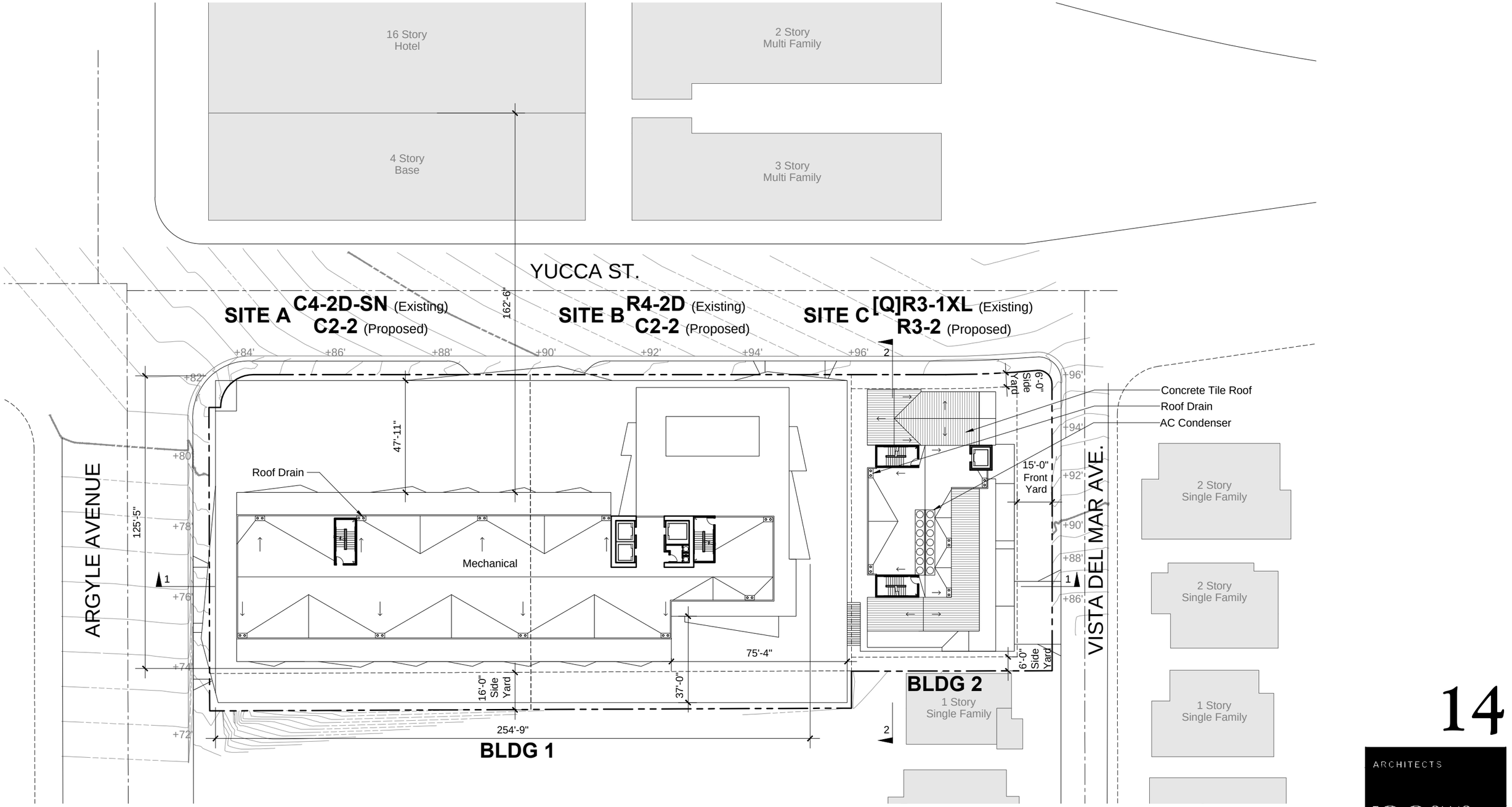
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Roof Plan

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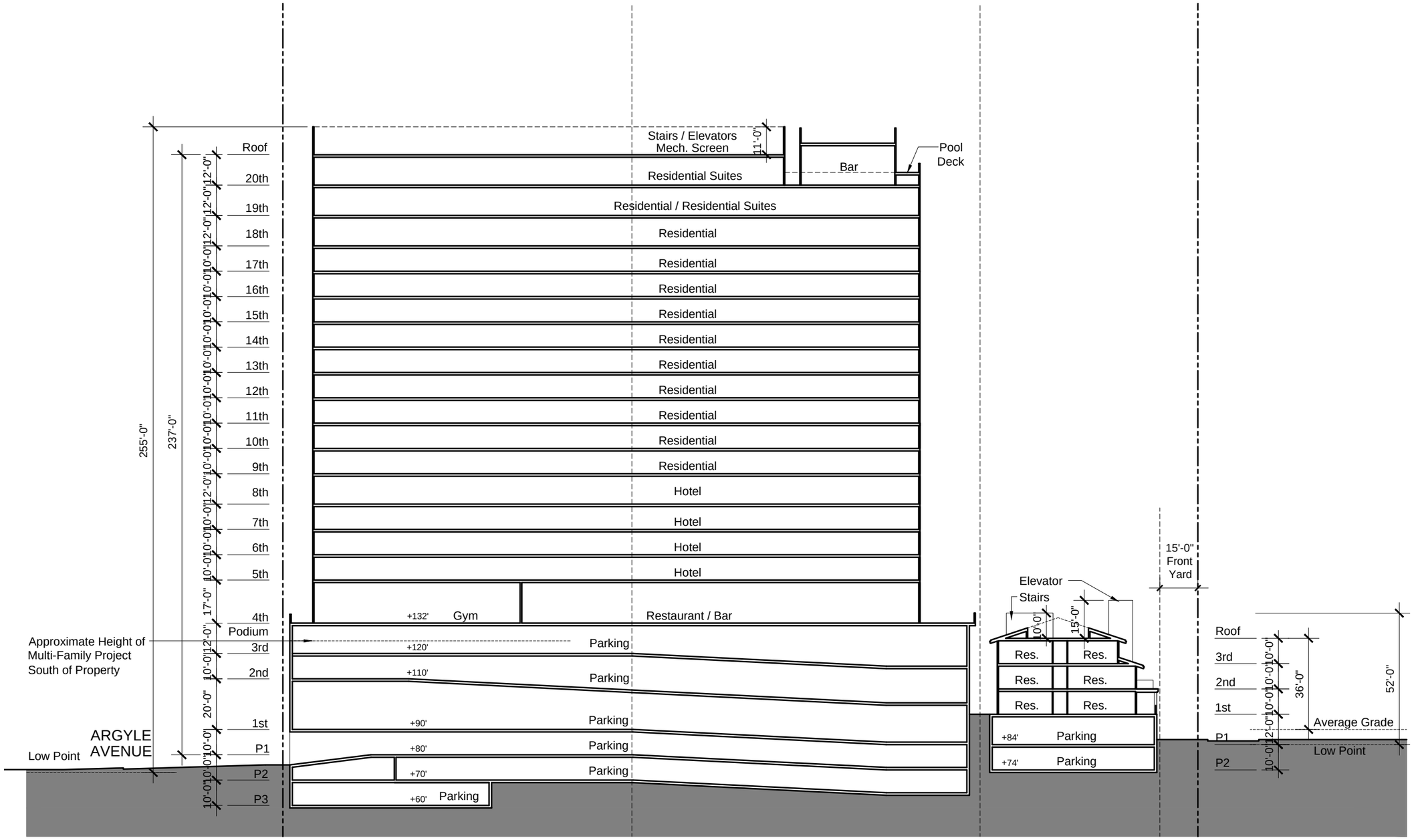
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C4-2D-SN (Existing), **C2-2** (Proposed)
SITE A

R4-2D (Existing), **C2-2** (Proposed)
SITE B

[Q]R3-1XL (Existing), **R3-2** (Proposed)
SITE C

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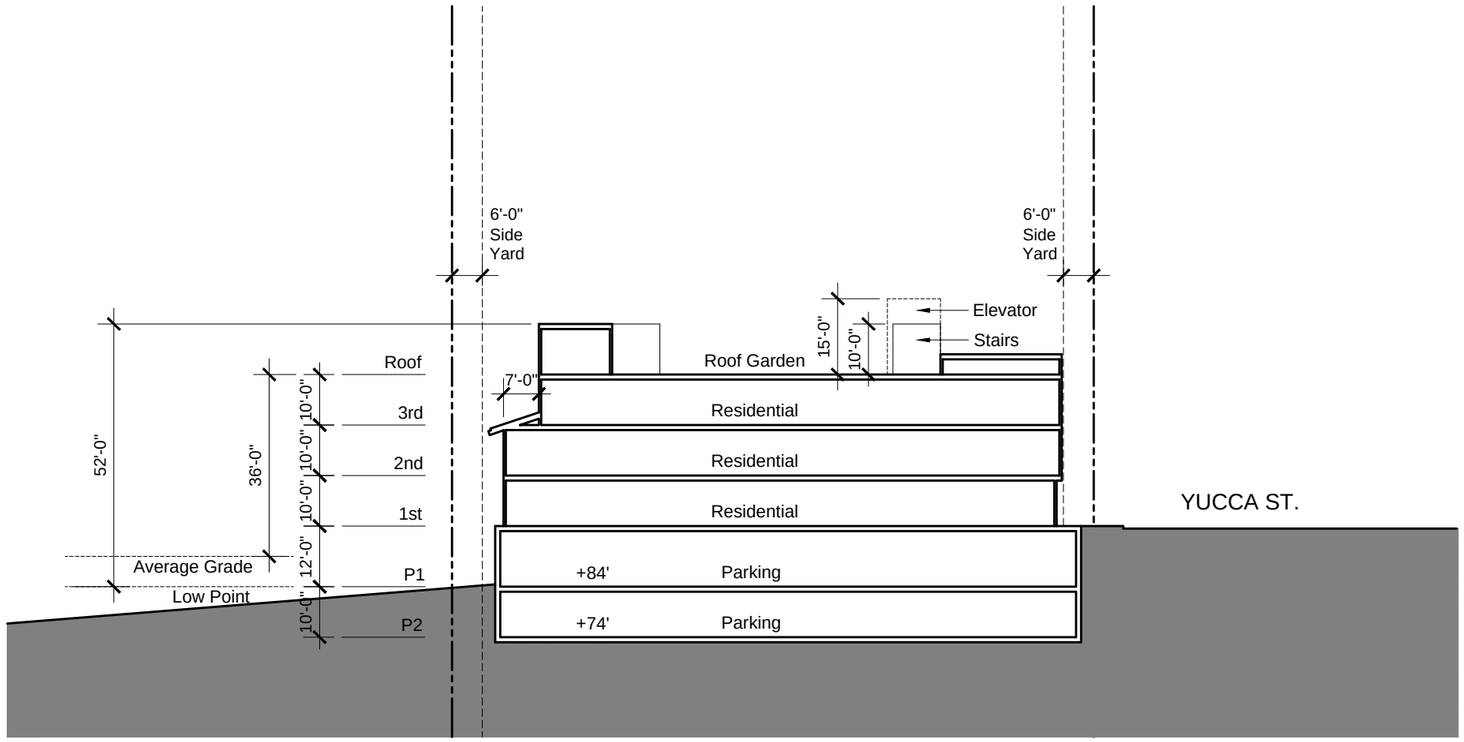
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[Q]R3-1XL (Existing), **R3-2** (Proposed)

SITE C

Section 2

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Exhibit 2 Project Renderings

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Champion Real Estate Company





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Exhibit 3 GHG Emissions Offset Approach for the Yucca Argyle Project / Commitment Letter and LEED Measures

Yucca Argyle Project

Application for CEQA Streamlining

Exhibit 3, Commitment Letter and LEED Measures

- Commitment Letter
- LEED Measures

Yucca Argyle Project
Application for CEQA Streamlining

- Commitment Letter

February 23, 2017

Ms. Terry Roberts, Manager
Sustainable Communities Policy and Planning Section
California Air Resource Board
9500 Telstar Avenue
El Monte, CA 91731

Re: Greenhouse Gas Emissions Offset Approach for the Yucca Argyle Project

Dear Ms. Roberts:

This letter is provided as a supplement to the application filed by Riley Realty, Ltd. (the "Project Applicant"), who proposes to develop the Yucca Argyle Project (the "Project") in the Hollywood Community Plan and the Hollywood Redevelopment Plan Project area of the City of Los Angeles.

As you know, the Project Applicant has applied for certification by the Governor as a leadership project under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011, as amended (collectively, "AB 900" or the "Act"). The application includes projected emissions for the Project that show certain projected net additional emissions of greenhouse gases (GHG) as a result of the construction of the Project and as a consequence of Project operations. The Project Applicant proposes to meet the requirement set forth in California Public Resources Code Section 21183 (c), which requires that the Project demonstrate that it will not result in net additional emissions of GHG, through the acquisition of voluntary carbon credits sufficient to offset all projected additional emissions, in the following manner:

1. No later than six (6) months after the issuance of a Temporary Certificate of Occupancy for the Project, the Project Sponsor shall provide to the lead agency, the City of Los Angeles, a calculation of the net additional emissions resulting from the construction of the Project (the "Construction Emissions"), to be calculated in accordance with the methodology agreed upon by the Air Resources Board (ARB) in connection with the AB 900 certification of the Project (the "Agreed Methodology"). Project Sponsor shall provide courtesy copies of the calculations to the ARB and the Governor's Office promptly following transmittal of the calculations to the City of Los Angeles. Project Sponsor shall enter into one or more contracts to purchase voluntary carbon credits from a qualified GHG emissions broker in an amount sufficient to offset the Construction Emissions. The Project Sponsor shall provide courtesy copies of any such contracts to the ARB and the Governor's Office promptly following the execution of such contracts.

2. Prior to issuance of any Certificate of Occupancy for any building in the Project, the Applicant or its successor shall enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (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 such building in the Project, as well as all previously constructed buildings in the Project and shall be calculated on a net present value basis for a 30-year useful life.

   Prior to execution of the contract(s), the Applicant and its consultant shall calculate the Operational Emissions, in accordance with the methodology described in the Applicant's "Application for Environmental Leadership Development Project", specifically the "Greenhouse Gas Emissions Methodology and Documentation" prepared by Environmental Science Associates (ESA).

   Once the City has had an opportunity to review and approve the methodology and associated calculations, the Applicant shall provide copies of the calculation methodology to the California Air Resources Board (CARB) and Governor's Office of Planning and Research (OPR), which is then subject to a determination signed by the Executive Officer of CARB pursuant to the procedures set forth in Section 6 of OPR's Guidelines. The City will issue a Certificate of Occupancy upon receipt of the following: (1) a fully executed copy of the carbon offset purchase agreement(s); (2) a final CARB Determination that the Project will not result in any net additional GHG emissions; and (3) a copy of OPR's Certification Letter for the Project.

3. The following project design features were accounted for in the AB 900 application for purposes of reducing GHG emissions and are, therefore, included as commitments in this letter.

   A. The design of the new buildings shall incorporate features to be capable of achieving at least Silver certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)-CS® or LEED-NC® Rating System as of January 1, 2011. Specific sustainability features that are integrated into the Project design to enable the Project to achieve LEED® Silver certification would include but not be limited to the following:

      a. Exceeding Title 24, Part 6, California Energy Code baseline standard requirements by a minimum of 5 percent for energy efficiency, based on the 2016 Building Energy Efficiency Standards requirements.

      b. Use of Energy Star-labeled products and appliances, including dishwashers in the residential units, where appropriate.

      c. Use of light emitting diode (LED) lighting or other energy-efficient lighting technologies, such as occupancy sensors or daylight harvesting and

dimming controls, where appropriate, to reduce electricity use.

d. The Project would reduce indoor water use by a minimum of 35 percent by installing water fixtures that meet Universal Plumbing Code standards.

e. The Project would reduce outdoor water us by a minimum of 50 percent from the calculated baseline at peak watering month by installing efficient irrigation.

B. The residential units within the Project shall not include the use of natural gas-fueled fireplaces.

C. The Project shall provide a minimum of 30 kilowatts of photovoltaic panels on the Project site, unless additional kilowatts of photovoltaic panels become feasible due to additional area being added to the Project Site.

The commitments outlined herein will be incorporated into the Project's Final Environmental Impact Report (FEIR) as a proposed improvement measure. The Project Sponsor will agree to comply with all improvement measures and mitigation measures contained in the FEIR through the Project's Mitigation Monitoring and Reporting Program, which represents a binding and enforceable agreement with the Project's lead agency, the City of Los Angeles.

Should you have any questions, please do not hesitate to call Greg Beck at (310) 312-8047.

Sincerely,

WL Yucca Argyle Owner A, LLC,
a Delaware limited liability company

By: WL Yucca Argyle Parent, LLC,
a Delaware limited liability
company, its sole member

By: Champion Yucca Argyle, LLC,
a Delaware limited liability
company, its managing member

By: _____ Name: Robert D Champion
Its: Authorized Signatory

Yucca Argyle Project
Application for CEQA Streamlining

- LEED Measures

Yucca Argyle Project
LEED Measures

The following list highlights the main sustainability strategies to be implemented into the Yucca Argyle Project in order to achieve the Gold Rating under LEED 2009 (v3) or the Silver Rating under LEED v4 rating system. This is in addition to the strategies needed to reduce the greenhouse gas (GHG) emissions, as required by the California Air Resources Board (ARB).

Design

- Prior to Project approvals, a preliminary LEED action plan will be submitted to the City of Los Angeles Department of City Planning. Prior to issuance of a building permit, conduct a preliminary LEED meeting with a minimum of four key Project team members and the owner or owner's representative. As part of the meeting, review a LEED action plan that, at a minimum (1) determines the LEED certification level to pursue (Certified, Silver, Gold, or Platinum); (2) selects the LEED credits to meet the targeted certification level; and (3) identifies the responsible parties, including but not limited to the Los Angeles Department of Building and Safety, the City of Los Angeles Department of City Planning, the City of Los Angeles Department of Public Works, Bureau of Engineering, to ensure the LEED requirements for each prerequisite and selected credit are met. Modifications to the selected criteria are permissible during construction as long as the LEED certification level continues to be met.

Site

- Implementation of an erosion and sedimentation plan for all construction activities.
- Provision of heat island mitigation strategies for 50 percent of hardscapes or provide 100 percent underground parking.
- Provision of heat island mitigation strategies for 75 percent of roof areas.
- Development of tenant design and construction guidelines, which applies to LEED Core & Shell certification only.

Transportation

- Installation of bike share facilities at the Project Site should a bike share program become available in Los Angeles.
- Allocation of preferred parking for alternative-fuel vehicles, low-emitting, and fuel-efficient and ride-sharing vehicles.
- Provision that 20 percent of parking spaces shall be electric vehicle-ready with 5 percent equipped with charging stations.
- Provide bicycle racks/storage for 5 percent of building users and shower/changing facilities for 0.5 percent of full-time equivalent (FTE) occupants.
- Provide additional bicycle storage and demarcated bike lanes/trails.

Water Quality

- Use of on-site storm water treatment in accordance with City standards.
- Installation of catch basin inserts and screens to provide runoff contaminant removal in accordance with City standards.
- Preparation and implementation of a Stormwater Pollution and Prevention Plan (SWPPP) and Standard Urban Stormwater Mitigation Plan (SUSMP), both of which would include Best Management Practices (BMPs) to control stormwater runoff, minimize pollutant loading and erosion effects during and after construction.

Energy Conservation and Efficiency

- Use of full-cutoff or fully shielded on-street lighting oriented to pedestrian areas/sidewalks so as to minimize overlighting, light trespass, and glare.
- Inclusion of outdoor air flow measuring devices, additional outdoor air ventilation, and use of low emitting materials to promote indoor environmental quality.
- Use of refrigerants that reduce ozone depletion.
- Provision of conduit that is appropriate for future photovoltaic and solar thermal collectors.

- Post-construction commissioning of building energy systems performed on an ongoing basis to ensure all systems are running at optimal efficiency.

- Purchase of renewable source power ("green power") to minimize carbon emissions.

- Review of commissioning activities by an independent Commissioning Agency and development and implementation of commissioning plan.

- Implementation of building level energy meter to provide monthly tracking of energy consumption.

- Provision of metering for tenant space.

Solid Waste

- Provision of on-site recycling containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers during construction and after the building is occupied.

- Use of building materials with a minimum of 10 percent recycled-content by cost for Divisions 2 through 10 for the construction of the Project.

- Implementation of a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris.

- Diversion of construction materials from landfill. Diversion must include at least three material streams (e.g., recovery, reuse, and recycling).

Air Quality

- Employment of practices that prohibit the use of chlorofluorocarbons (CFCs) in heating, ventilation, and air conditioning (HVAC) systems.

- Installation of MERV 13 filtration at outside air intakes to improve indoor air quality (per Los Angeles Municipal Code Sections 99.04.504.6 and 99.05.504.5.3).

- Meeting applicable California and/or Los Angeles air emissions requirements for all heating or cogeneration equipment utilized at the Project Site.

- Installation of landscaping throughout the Project Site, including roof decks, pool decks, and terraces, to provide shading and capture carbon dioxide (CO_2) emissions.

- Use of adhesives, sealants, paints, finishes, carpet, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air quality pollutants.

- Development of an Indoor Air Quality Management Plan for construction and pre-occupancy phases.

- Provision of individual control on thermostats to 50 percent of building occupants. For residential buildings, the credit can be achieved by providing access to operable windows. For commercial spaces, control must be provided to 50 percent of occupants in order to meet the intent of the credit.

- HVAC system design compliance to ASHRAE 55. The Core & Shell base building mechanical systems must allow for the tenant build-out to meet the requirement of this credit.

Exhibit 4 AB 900 Traffic Assessment for the 6220 West Yucca Project

MEMORANDUM

TO: Mike Harden, ESA PCR

FROM: Jonathan Chambers, P.E.

DATE: January 12, 2017

RE: AB 900 Traffic Assessment for the
6220 West Yucca Project
Hollywood, California **Ref:** J1372

Gibson Transportation Consulting, Inc. (GTC) was asked to prepare an assessment of the transportation efficiency of the 6220 West Yucca Project (Project) in the Hollywood community of the City of Los Angeles, California (City) to determine whether it meets the requirements for classification as an Environmental Leadership Development Project under California Assembly Bill 900 (AB 900).

PROJECT LOCATION

The Project is located at the southeast corner of Argyle Avenue and Yucca Street (Project Site). The Project Site is currently occupied by one single family residence, one duplex (two residential units) and three two-story apartment buildings (40 residential units) for a total of 43 residential units. The surrounding area is urbanized and includes historic and modern low to high-rise buildings, occupied by neighborhood-serving commercial, tourist and entertainment-related commercial uses, offices, hotels, educational institutions, and single-family and multi-family residences.

The Project Site is located approximately 300 feet from the Hollywood Freeway (US 101), which provides regional transportation between downtown Los Angeles and the San Fernando Valley. The Project Site is served by Argyle Avenue and Yucca Street, both of which are designated local streets in *Mobility Plan 2035 – An Element of the General Plan* (Los Angeles Department of City Planning, January 2016). The Project Site is also located within 700 feet of the Los Angeles County Metropolitan Transportation Authority's (Metro) Hollywood/Vine Station. The Hollywood/Vine Station provides service to the Metro Red Line subway, which travels between Union Station in downtown Los Angeles and North Hollywood in the San Fernando Valley at 10-minute intervals throughout the day. Bicycle routes with shared lane markings, or "sharrows", are located adjacent to the Project Site on Argyle Avenue.

PROJECT DESCRIPTION

The Project is a mixed-use development including 210 multi-family residential units in 202,545 square feet (sf), 136 hotel rooms in 58,540 sf, and approximately 12,500 sf of commercial/restaurant uses in two buildings. Building 1, up to 20 stories tall on the southeast corner of Argyle Avenue and Yucca Street, would include all three uses and would be built over six levels of parking, including two fully subterranean levels, two semi-subterranean levels, and two levels above ground. Building 2, located on the southwest corner of Vista Del Mar and Yucca Street, would include three residential levels over a two-level podium parking structure (including one subterranean level and one at-grade level). Building 2 would be a total of four stories above ground and would contain only residential uses. In total, the Project would be approximately 273,585 sf. The Project Site is currently developed with one single-family residence, one duplex (two multi-family units), and three two-story apartment buildings (40 residential units) for a total of 43 residential units.

SITE ACCESS AND CIRCULATION

Vehicular access to Building 1 would be provided via Yucca Street and Argyle Avenue. The entrance on Yucca Street would provide access to Levels 1 through 3, which would include limited commercial parking and the remainder residential parking. The entrance on Argyle Avenue would provide access to the three subterranean levels, which would include commercial and hotel parking and the remaining residential parking serving Building 1. Vehicular access to Building 2 would be provided by driveways on Yucca Street and Vista Del Mar Avenue, each providing access to a single level of residential parking. Long-term bicycle storage would be provided within the parking levels, accessed through the vehicular driveways.

Pedestrian access to the commercial and restaurant uses would be provided from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bike parking along Argyle Avenue, Yucca Street, and Vista Del Mar Avenue. Access would be unrestricted during business hours, with public access discontinued after businesses have closed. Pedestrian access to residential uses would be restricted during night-time hours and would be provided directly from parking levels as well as from a shared hotel/residential lobby on the ground level of Building 1. Hotel access would be through the shared lobby and access to upper floors would be restricted to hotel guests with key cards.

EXISTING TRANSIT SERVICE

The Project Site is located within 700 feet of the Metro Hollywood/Vine Station, which provides service to the Metro Red Line subway. The Metro Red Line travels between Union Station in downtown Los Angeles and North Hollywood in the San Fernando Valley at 10-minute intervals during the commuter morning and afternoon peak hours. The Project Site is also served by numerous transit lines within walking distance on Yucca Street, Argyle Avenue, and Hollywood Boulevard, including Metro Lines 180/181, 210, 217, 757, and 780, as well as the Los Angeles Department of Transportation (LADOT) DASH Hollywood, Beachwood Canyon, and Hollywood/Wilshire routes.

PROJECT TRIP GENERATION AND VEHICLE MILES TRAVELED (VMT)

The Project trip generation estimates were calculated using published rates from *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012) for single family homes (ITE 210), apartments (ITE 220), hotel (ITE 310), shopping center (ITE 820), and high-turnover restaurant (ITE 932). As shown in Table 1, the Project is anticipated to generate 2,647 net new daily weekday trips, including 198 morning peak hour trips (88 inbound, 110 outbound) and 214 afternoon peak hour trips (129 inbound, 85 outbound).

The trip type and average trip lengths for each land use were determined using the California Emissions Estimator Model (CalEEMod). The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work (H-W), home-shop (H-S), and home-other (H-O). Commercial trips include commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type. The trip lengths and percentage of types from CalEEMod are detailed in Table 2.

As shown in Table 2, the average trip length in the Hollywood area as calculated by CalEEMod is 10.5 miles for residential apartment uses, 9.7 miles for hotel uses, 9.5 for retail uses, and 9.1 for restaurant uses. These trip lengths were applied to the Project trips to develop the total vehicle miles traveled (VMT) of the Project. As detailed in Table 2, prior to accounting for applicable reductions, the traffic generated by the Project would total 37,326 daily VMT, including 2,782 VMT during the morning peak hour and 3,075 VMT during the afternoon peak hour.

COMPARABLE PROJECT

For the purposes of assessing the Project's performance on key trip-reduction and VMT-reduction metrics, it was necessary to establish a baseline Comparable Project by which to compare. The Comparable Project shares certain characteristics with the proposed Project, including size and mix of land uses, but does not have the location-specific benefits of the Project or the Project features designed to reduce trips and VMT. For the purposes of this analysis, the Comparable Project would experience pass-by trip reductions (existing trips in the area that are "passing by" on the way to another destination) consistent with the Project, but would not experience the benefits of being located in a transit-friendly walkable area, the design that lends to internal capture of trips, and a robust transportation demand management program. Additionally, it would be built on a vacant site rather than replacing existing lower-density uses.

Table 3 summarizes the trips and VMT associated with the Comparable Project. It includes the gross total trip generation and pass-by trip reduction for the Project as identified in Table 1. As shown in Table 3, the Comparable Project would generate 35,182 daily VMT, including 2,626 VMT during the morning peak hour and 2,900 VMT during the afternoon peak hour.

PROJECT-RELATED REDUCTIONS

The Project's location, design, and specific features will help to reduce trips and VMT as compared to the Comparable Project. Each of these reductions is summarized here.

Transit / Walk Reduction

The Project Site is located less than 700 feet from the Metro Hollywood/Vine Station, a high-capacity, high-frequency transit route serving high-density areas like North Hollywood, Hollywood, and downtown Los Angeles. The Project Site is also served by numerous bus lines as previously summarized, and the nearby area provides excellent pedestrian connectivity and amenities. Therefore, a 15% transit / walk reduction was applied to all land use components of the Project, which is consistent with LADOT guidelines.

As shown in Table 4, Project trips would be reduced by 552 per day by transit usage and walk-ins, including 40 during the morning peak hour and 46 during the afternoon peak hour. This corresponds to a VMT reduction of 5,426 daily VMT, including 393 VMT during the morning peak hour and 454 VMT during the afternoon peak hour.

Internal Capture Reduction

The ground-floor retail and restaurant uses would be oriented in such a way as to be easily accessible to hotel visitors and permanent residents at the Project Site. Therefore, it is estimated that 10% of retail and restaurant patrons would be people already at the Project Site, and would not generate additional trips.

As shown in Table 5, Project trips would be reduced by 130 per day due to internal capture, including 10 each during the morning and afternoon peak hours. This corresponds to a VMT reduction of 1,190 daily VMT, including 91 VMT during the morning peak hour and 92 VMT during the afternoon peak hour.

Transportation Demand Management Reduction

As part of the Project, a transportation demand management (TDM) program will be implemented to reduce the use of single occupant vehicles by increasing the number of trips by walking, bicycle, carpool, vanpool, and transit. The TDM program would include design features, transportation services, education, and incentives intended to reduce the amount of single occupant vehicles during commuter peak hours. The TDM program is expected to include the following strategies:

- Promotion and support of carpools and rideshares, including parking incentives
- On-site short-term car rentals
- Bicycle amenities (bicycle racks, lockers, showers, etc.) and a contribution to the City's Bicycle Plan Trust Fund for bicycle facility improvements in the area
- Education and information on alternative transportation modes
- Participation in the Hollywood Transportation Management Organization

The implementation of the TDM program will further reduce the trips and VMT of residential users of the Project by 10%.

As shown in Table 6, Project trips would be reduced by 140 per day due to the TDM program, including 11 during the morning peak hour and 13 during the afternoon peak hour. This corresponds to a VMT reduction of 1,470 daily VMT, including 116 VMT during the morning peak hour and 137 VMT during the afternoon peak hour.

Removal of Existing Uses at Project Site

The Project Site is currently occupied by residential uses including one single-family home and 42 multi-family units. These uses would be removed to construct the proposed Project and, therefore, the trips and VMT associated with them would cease. As such, the Project is an "infill" project, replacing existing low-density residential uses with a high-density, mixed-use development.

As shown in Table 7, the existing uses currently generate 245 trips per day, including 200 during the morning peak hour and 242 during the afternoon peak hour. This corresponds to 2,573 daily VMT, including 200 VMT during the morning peak hour and 242 VMT during the afternoon peak hour.

TOTAL PROJECT TRIPS AND VMT

Table 8 summarizes Project trip generation and applicable reductions described above along with corresponding VMT. As shown, the Project would generate a net total of 2,507 daily trips, including 187 during the morning peak hour and 201 during the afternoon peak hour. This corresponds to 24,523 daily VMT, including 1,826 VMT during the morning peak hour and 1,975 VMT during the afternoon peak hour.

Table 9 compares the Project trips and VMT to the Comparable Project based on the information in Table 3. As shown, the Project would generate 10,659 fewer daily VMT than the Comparable Project, including 800 fewer VMT during the morning peak hour and 925 fewer VMT during the afternoon peak hour. This represents a VMT reduction of 30.3% daily, including 30.5% during the morning peak hour and 31.9% during the afternoon peak hour.

Thus, the combined effects of the Project's urban infill location, proximity to transit and pedestrian amenities, and proposed TDM program would reduce the Project's anticipated VMT by approximately 30% as compared to a comparable mixed-use project in the Hollywood area.

Therefore, the Project results in at least 10% greater transportation efficiency as required for the application for Environmental Leadership Development Project.

TABLE 1
PROJECT TRIP GENERATION ESTIMATES

Land Use	ITE Land Use	Rate or Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates									
Single-Family House	210	per du	9.52	25%	75%	0.75	63%	37%	1.00
Apartments	220	per du	6.65	20%	80%	0.51	65%	35%	0.62
Hotel	310	per room	8.17	61%	39%	0.56	53%	47%	0.59
Retail	820	per 1,000 sf	42.94	61%	39%	1.00	49%	51%	3.73
Restaurant	932	per 1,000 sf	127.15	55%	45%	10.81	60%	40%	9.85
Trip Generation Estimates									
Residential Uses									
Apartments	220	210 du	1,397	21	86	107	85	45	130
Transit / Walk Adjustment - 15%			*-210*	*-3*	*-13*	*-16*	*-13*	*-7*	*-20*
Residential Subtotal			***1,187***	***18***	***73***	***91***	***72***	***38***	***110***
Commercial Uses									
Hotel	310	136 rooms	1,111	46	30	76	42	38	80
Transit / Walk Adjustment - 15%			*-167*	*-7*	*-4*	*-11*	*-6*	*-6*	*-12*
Retail	820	3,450 sf	148	2	1	3	6	7	13
Internal Capture Adjustment - 10%			*-15*	*0*	*0*	*0*	*0*	*-1*	*-1*
Transit / Walk Adjustment - 15%			*-20*	*0*	*0*	*0*	*-1*	*-1*	*-2*
Pass-by Adjustment - 50%			*-57*	*-1*	*-1*	*-2*	*-2*	*-3*	*-5*
Restaurant	932	9,050 sf	1,151	54	44	98	53	36	89
Internal Capture Adjustment - 10%			*-115*	*-6*	*-4*	*-10*	*-5*	*-4*	*-9*
Transit / Walk Adjustment - 15%			*-155*	*-7*	*-6*	*-13*	*-7*	*-5*	*-12*
Pass-by Adjustment - 20%			*-176*	*-8*	*-7*	*-15*	*-8*	*-6*	*-14*
Commercial Subtotal			***1,705***	***73***	***53***	***126***	***72***	***55***	***127***
GROSS TOTAL - PROPOSED PROJECT			**2,892**	**91**	**126**	**217**	**144**	**93**	**237**
Existing Uses to be Removed									
Single Family House	210	1 du	10	0	1	1	1	0	1
Transit / Walk Adjustment - 15%			*-2*	*0*	*0*	*0*	*0*	*0*	*0*
Apartment	220	42 du	279	4	17	21	17	9	26
Transit / Walk Adjustment - 15%			*-42*	*-1*	*-2*	*-3*	*-3*	*-1*	*-4*
Existing Subtotal			***245***	***3***	***16***	***19***	***15***	***8***	***23***
NET TOTAL - PROPOSED PROJECT			**2,647**	**88**	**110**	**198**	**129**	**85**	**214**

Notes:

sf = square feet; du = dwelling units;

All trip generation rates are from *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012).

Transit / Walk adjustment of up to 15% is allowed for developments within 1/4 mile of a Metro Rail station (site is approximately 700 feet from Hollywood & Vine station).

TABLE 2
CONVERSION OF PROJECT TRIPS TO VEHICLE MILES TRAVELED

Land Use	Size / Average Trip Length	Daily	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Estimates (Without Trip Reductions)								
Apartments	210 du	1,397	21	86	107	85	45	130
Hotel	136 rooms	1,111	46	30	76	42	38	80
Retail	3,450 sf	148	2	1	3	6	7	13
Restaurant	9,050 sf	1,151	54	44	98	53	36	89
Total Gross Project Trips Before Reductions		**3,807**	**123**	**161**	**284**	**186**	**126**	**312**
Vehicle Miles Traveled (Without Trip Reductions)								
Apartments	10.5 miles	14,669	221	903	1,124	893	472	1,365
Hotel	9.7 miles	10,777	446	291	737	407	369	776
Retail	9.5 miles	1,406	19	10	29	57	67	124
Restaurant	9.1 miles	10,474	491	401	892	482	328	810
Gross Project VMT		**37,326**	**1,177**	**1,605**	**2,782**	**1,839**	**1,236**	**3,075**

Notes:

sf = square feet; du = dwelling units; Average trip lengths based on CalEEMod assumptions.

TABLE 3
COMPARABLE PROJECT TRIPS AND VEHICLE MILES TRAVELED

Land Use	Pass-by Trip Reduction / Average Trip Lengths	Daily	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Reduction								
Apartments	0%	0	0	0	0	0	0	0
Hotel	0%	0	0	0	0	0	0	0
Retail	50%	57	1	1	2	2	3	5
Restaurant	20%	176	8	7	15	8	6	14
Subtotal - Pass-by Trip Reduction		***233***	***9***	***8***	***17***	***10***	***9***	***19***
Total Project Trips with Pass-by Trip Reduction		**3,574**	**114**	**153**	**267**	**176**	**117**	**293**
Vehicle Miles Traveled Reduction								
Apartments	10.5 miles	0	0	0	0	0	0	0
Hotel	9.7 miles	0	0	0	0	0	0	0
Retail	9.5 miles	542	10	9	19	19	29	48
Restaurant	9.1 miles	1,602	73	64	137	73	54	127
Subtotal - Pass-by Trip Vehicle Miles Traveled		***2,144***	***83***	***73***	***156***	***92***	***83***	***175***
[a] **COMPARABLE PROJECT VEHICLE MILES TRAVELED**		**35,182**	**1,094**	**1,532**	**2,626**	**1,747**	**1,153**	**2,900**

Notes:

Pass-by trip reductions are based on estimates from Table 1. Average trip lengths based on CalEEMod assumptions.

[a] Calculated as the difference between the gross Project VMT from Table 2 and the pass-by VMT reduction.

TABLE 4
TRANSIT / WALK REDUCTION AT PROJECT SITE

Land Use	Trip Reduction / Average Trip Lengths	Daily	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Reduction								
Apartments	15%	210	3	13	16	13	7	20
Hotel	15%	167	7	4	11	6	6	12
Retail	15%	20	0	0	0	1	1	2
Restaurant	15%	155	7	6	13	7	5	12
Trips Reduced by Transit / Walk		***552***	***17***	***23***	***40***	***27***	***19***	***46***
Vehicle Miles Traveled Reduction								
Apartments	10.5 miles	2,205	32	136	168	137	73	210
Hotel	9.7 miles	1,620	68	39	107	58	58	116
Retail	9.5 miles	190	0	0	0	10	9	19
Restaurant	9.1 miles	1,411	64	54	118	64	45	109
VMT Reduced by Transit / Walk		***5,426***	***164***	***229***	***393***	***269***	***185***	***454***

Notes:

Transit / Walk trip reductions are based on estimates from Table 1. Average trip lengths based on CalEEMod assumptions.

TABLE 5
INTERNAL CAPTURE REDUCTION AT PROJECT SITE

Land Use	Trip Reduction / Average Trip Lengths	Daily	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Reduction								
Apartments	0%	0	0	0	0	0	0	0
Hotel	0%	0	0	0	0	0	0	0
Retail	10%	15	0	0	0	0	1	1
Restaurant	10%	115	6	4	10	5	4	9
Trips Reduced by Internal Capture		***130***	***6***	***4***	***10***	***5***	***5***	***10***
Vehicle Miles Traveled Reduction								
Apartments	10.5 miles	0	0	0	0	0	0	0
Hotel	9.7 miles	0	0	0	0	0	0	0
Retail	9.5 miles	143	0	0	0	0	10	10
Restaurant	9.1 miles	1,047	55	36	91	46	36	82
VMT Reduced by Internal Capture		***1,190***	***55***	***36***	***91***	***46***	***46***	***92***

Notes:

Internal Capture trip reductions are based on estimates from Table 1. Average trip lengths based on CalEEMod assumptions.

TABLE 6
TRANSPORTATION DEMAND MANAGEMENT REDUCTION AT PROJECT SITE

Land Use	Trip Reduction / Average Trip Lengths	Daily	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Reduction								
Apartments	10%	140	2	9	11	9	4	13
Hotel	0%	0	0	0	0	0	0	0
Retail	0%	0	0	0	0	0	0	0
Restaurant	0%	0	0	0	0	0	0	0
Trips Reduced by TDM Program		***140***	***2***	***9***	***11***	***9***	***4***	***13***
Vehicle Miles Traveled Reduction								
Apartments	10.5 miles	1,470	21	95	116	95	42	137
Hotel	9.7 miles	0	0	0	0	0	0	0
Retail	9.5 miles	0	0	0	0	0	0	0
Restaurant	9.1 miles	0	0	0	0	0	0	0
VMT Reduced by TDM Program		***1,470***	***21***	***95***	***116***	***95***	***42***	***137***

Notes:

Transportation Demand Management program trip reductions are based on estimates from *Traffic Study for the 6220 Yucca Street Mixed-Use Project* (Gibson Transportation Consulting, Inc., April 2016). Average trip lengths based on CalEEMod assumptions.

TABLE 7
EXISTING PROJECT SITE TRIPS TO BE REMOVED

Land Use	Size / Average Trip Length	Daily	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Estimates (Including Transit / Walk Trip Reduction)								
Single Family Homes	1 du	8	0	1	1	1	0	1
Apartments	42 du	237	3	15	18	14	8	22
Existing Project Site Trips		**245**	**3**	**16**	**19**	**15**	**8**	**23**
Vehicle Miles Traveled (Including Transit / Walk Trip Reduction)								
Single Family Homes	10.5 miles	84	0	11	11	11	0	11
Apartments	10.5 miles	2,489	32	157	189	147	84	231
Existing Project Site VMT		**2,573**	**32**	**168**	**200**	**158**	**84**	**242**

Notes:

du = dwelling units; Average trip lengths based on CalEEMod assumptions.

TABLE 8
PROJECT VMT WITH ALL APPLICABLE TRIP REDUCTIONS

Land Use	Daily	Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Trips							
Project with Pass-by Trip Reduction (Comparable Project)	**3,574**	**114**	**153**	**267**	**176**	**117**	**293**
Transit / Walk Trip Reduction [a]	552	17	23	40	27	19	46
Internal Capture Trip Reduction [b]	130	6	4	10	5	5	10
TDM Program Trip Reduction [c]	140	2	9	11	9	4	13
Existing Land Use Trip Reduction [d]	245	3	16	19	15	8	23
Net Project Trips	**2,507**	**86**	**101**	**187**	**120**	**81**	**201**
Vehicle Miles Traveled							
Project with Pass-by Trip Reduction (Comparable Project)	**35,182**	**1,094**	**1,532**	**2,626**	**1,747**	**1,153**	**2,900**
Transit / Walk Trip Reduction [a]	5,426	164	229	393	269	185	454
Internal Capture Trip Reduction [b]	1,190	55	36	91	46	46	92
TDM Program Trip Reduction [c]	1,470	21	95	116	95	42	137
Existing Land Use Trip Reduction [d]	2,573	32	168	200	158	84	242
Net Project VMT	**24,523**	**822**	**1,004**	**1,826**	**1,179**	**796**	**1,975**

Notes:

[a] From Table 4.
[b] From Table 5.
[c] From Table 6.
[d] From Table 7.

TABLE 9
PROJECT COMPARISON TO COMPARABLE PROJECT

Land Use	Daily	Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Vehicle Trips							
Comparable Project [a]	3,574	114	153	267	176	117	293
Net Project Trips with Applicable Reductions [b]	2,507	86	101	187	120	81	201
Trip Reduction vs. Comparable Project	1,067	28	52	80	56	36	92
Percent Reduction vs. Comparable Project	**29.9%**			**30.0%**			**31.4%**
Vehicle Miles Traveled							
Comparable Project [a]	35,182	1,094	1,532	2,626	1,747	1,153	2,900
Net Project VMT with Applicable Reductions [b]	24,523	822	1,004	1,826	1,179	796	1,975
VMT Reduction vs. Comparable Project	10,659	272	528	800	568	357	925
Percent Reduction vs. Comparable Project	**30.3%**			**30.5%**			**31.9%**

Notes:

[a] From Table 3.

[b] From Table 8.

Exhibit 5 6220 West Yucca Street, Fiscal Impact & Economic Benefit Analysis

6220 WEST YUCCA STREET

FISCAL IMPACT & ECONOMIC BENEFIT ANALYSIS
HOLLYWOOD, CA

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The analyses, projections, assumptions, rates of return, and any examples presented herein are for illustrative purposes and are not a guarantee of actual and/or future results. Project pro forma and tax analyses are projections only. Actual results may differ from those expressed in this analysis.

1.0 Executive Summary

1.1 Background & Purpose

In parallel with various financial and environmental analysis and community outreach efforts for the proposed 6220 West Yucca Street Project ("Project"), development firm Riley Realty, L.P. ("Developer") retained Kosmont Companies ("Kosmont") to prepare a gross fiscal impact and economic benefit analysis ("Analysis") to evaluate the primary fiscal revenue impacts and economic benefits of the Project to the City of Los Angeles ("City") and greater local region.

1.2 Project Description

The proposed Project includes approximately 210 multi-family residential units, 136 hotel rooms, and approximately 12,500 square feet of commercial/restaurant uses on approximately 1.16 acres of land located on the south side of West Yucca Street between Argyle Avenue and Vista Del Mar Avenue in the City, generally referenced as 6220 West Yucca Street ("Site"). Parking would be provided on-site within two multi-story parking structures.

The Site is located within the Hollywood community of the City and is currently improved with one single-family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas, all of which would be demolished and removed to allow development of the Project. Table 1.1 provides an overview of the Project.

Table 1.1: Proposed Project Characteristics

Project Component		Net Building SF	Gross Building SF
Multifamily Residential	210 units	202,545 SF	248,300 SF
Hotel	136 rooms	58,540 SF	82,775 SF
Commercial / Restaurant		12,500 SF	12,500 SF
Estimated Total Project		**273,585 SF**	**343,575 SF**
Parking	438 spaces	189,705 SF	189,705 SF

Note: All figures approximated
Source: Riley Realty, L.P. (2017)

1.3 Summary of Findings

Construction Period: Development costs are estimated in the range of $180 million. During the construction period, the Project is estimated to create approximately 1,995 jobs, $142 million in labor income, and $314 million in economic output. The Project is estimated to generate approximately $12.3 million in state and local taxes, of which approximately $680,000 will be collected by Los Angeles County and $390,000 will be collected by local cities. Construction of the Project will additionally generate approximately $25.6 million in federal taxes.

Ongoing Annual Operation: Ongoing operation of the Project is estimated to create approximately 194 jobs, $8.9 million in labor income, and $25.3 million in economic output on annual basis. Operation of the Project is estimated to generate approximately $4.9 million in state and local taxes, of which approximately $890,000 will be collected by Los Angeles County and $2.0 million will be collected by the City of Los Angeles on an annual basis. Operation of the Project will additionally generate approximately $2.1 million in federal taxes on an annual basis. Table 1.2 provides an overview of fiscal impacts and economic benefits.

Table 1.2: Overview of Fiscal Impacts and Economic Benefits

	Construction (One-Time / Short-Term)	Ongoing Operation (Annual)
Employment	**1,995 jobs**	**194 jobs**
Labor Income	**$142,107,152**	**$8,913,684**
Economic Output	**$314,303,776**	**$25,342,522**
State and Local Taxes	**$12,264,531**	**$4,919,656**
City of Los Angeles and other Local Cities	$389,198	$2,011,600
County of Los Angeles	$681,097	$892,849
State and Other Local	$11,194,235	$2,015,207
Federal Taxes	**$25,568,537**	**$2,082,428**

Notes: Ongoing operation impacts upon build-out and stabilization. All amounts in 2017 dollars.
Source: IMPLAN, City of Los Angeles, County of Los Angeles Auditor-Controller, Urban Land Institute, International Council of Shopping Centers, American Hotel and Lodging Association, Riley Realty LP, U.S. Census Bureau, ESRI (2017)

Analysis methodology is described in greater detail in the following sections.

2.0 Employment and Economic Benefits

2.1 General Assumptions

General assumptions follow below, and more specific assumptions are provided for specific fiscal impact and economic benefit categories on the following pages.

- Dollar amounts are expressed in 2017 dollars.
- Impacts from ongoing operation are estimated at full build-out and stabilized occupancy.

This Analysis is based on information available from the Developer, the City of Los Angeles, Los Angeles County ("County") Property Tax Assessor and Auditor-Controller, California State Board of Equalization, U.S. Census Bureau, U.S. Bureau of Labor Statistics, CoStar Property, Southern California Association of Governments, American Hotel and Lodging Association, ESRI, and the IMPLAN Group.

2.2 IMPLAN Economic Benefits

This Analysis uses the IMPLAN (IMpact analysis for PLANning) econometric input/output model developed by the IMPLAN Group to quantify the economic benefits to the local region from Project construction and ongoing operations. This proprietary model estimates the economic benefits on the industries in a given geographic area based on known economic inputs, such as construction costs. The model estimates benefits expressed in terms of increased employment, earnings ("labor income"), and economic activity ("output"). Direct, indirect, and induced economic benefits were evaluated.

Direct economic benefits refer to the short-term business activity of general contractors involved in Project construction and the ongoing business activities of Project tenants.

Indirect economic benefits will result when local firms directly impacted by the Project in turn purchase materials, supplies or services from other firms. Examples would include increased sales of building materials as a result of construction activity and increased sales of inputs related to the business operations of tenants within the Project.

Induced economic benefits relate to the consumption spending of employees of firms that are directly or indirectly affected by the Project. These would include all of the goods and services normally associated with household consumption (e.g., housing, retail purchases, etc.).

Inputs for the IMPLAN economic benefit analysis include the construction / development budget and permanent on-site employment estimated by this Analysis (see Tables 2.1 and 2.4).

Table 2.1 IMPLAN Economic Benefit Analysis Inputs

Construction Inputs (Industry Spending)

Industry NAICS Category	IMPLAN Input
37 Construction of new residential permanent site single- and multi-family structures	$78,781,400
34 Construction of new nonresidential commercial and health care structures	$58,650,400
369 Architectural, engineering, and related services	$37,732,863
355 Nondepository credit intermediation and related activities	$3,454,371

Ongoing Operation Inputs (Employment Change)

Industry NAICS Category	IMPLAN Input
411 Hotels and motels, including casino hotels	91 Jobs
413 Food services and drinking places	27 Jobs
330 Retail Stores - Miscellaneous	11 Jobs
360 Real estate establishments	4 Jobs
422 Other personal services	2 Jobs

Source: IMPLAN, Los Angeles County dataset (2017)

During the construction period, the Project is estimated to create approximately 1,995 jobs, $142 million in labor income, and $314 million in construction-related economic output, as outlined in Table 2.2.

Table 2.2 Summary of Economic Benefits from Project Construction

Economic Benefits from Construction (One-Time / Short-Term)

	Employment	Labor Income	Economic Output
Direct (On-Site)	1,109	$88,760,480	$178,619,040
Indirect	380	$25,589,754	$61,317,164
Induced	505	$27,756,920	$74,367,560
Total Countywide	**1,995**	**$142,107,152**	**$314,303,776**
Estimated City Capture	**1,331**	**$102,097,149**	**$212,540,221**

Source: IMPLAN, Los Angeles County dataset (2017)

Upon build-out and stabilization, ongoing operation of the Project is estimated to generate approximately 194 on-site jobs, $8.9 million in labor income, and $25.3 million in economic output on annual basis, as summarized in Table 2.3.

Table 2.3 Summary of Economic Benefits from Ongoing Project Operation

Economic Benefits from Ongoing Operation (Annual)

	Employment	Labor Income	Economic Output
Direct (On-Site)	135	$5,383,524	$16,397,525
Indirect	27	$1,790,913	$4,282,129
Induced	32	$1,739,247	$4,662,869
Total Countywide	**194**	**$8,913,684**	**$25,342,522**
Estimated City Capture	**150**	**$6,266,064**	**$18,633,775**

Notes: Ongoing operation benefits upon build-out and stabilization.
Source: IMPLAN, Los Angeles County dataset (2017)

2.3 Permanent On-Site Employment, Residents and Guests

Based on Project component characteristics (e.g. unit counts, square footage) and industry standard employment densities, the Project is estimated to create approximately 135 full-time equivalent ("FTE") jobs on-site. Approximately 499 residents and 143 hotel guests are estimated to occupy the Project on a daily basis, as detailed in Table 2.4.

Table 2.4 Estimation of On-Site Employment, Residents, and Guests

Project Component	Basis	Empl. Factor	Estimated # Empl. (FTE)
Multifamily Residential	210 units	50 DU / emp	4
Hotel	136 rooms	1.50 room / emp	91
Commercial / Restaurant	12,500 SF	333 SF / emp	38
Parking	438 spaces	200 spaces / emp	2
Total Employees			**135**
Occupied Multifamily Units	95%		200 units
Residents	**2.5 per unit**		**499**
Occupied Hotel Rooms	70%		95 rooms
Hotel Guests	**1.5 per room**		**143**
Service Population (Residents + Employees Weighted at 50%)			**566**

Source: Riley Realty LP, American Hotel and Lodging Association Southern California Association of Governments / The Natelson Company Employment Density Summary Report

3.0 Fiscal Revenue Impacts

3.1 IMPLAN Estimations of State, Local, and Federal Taxes

Based on analysis inputs (see Table 2.1), IMPLAN generates estimates of state, local, and federal tax revenues utilizing its internal econometric multipliers. State and local tax revenues from Project construction are estimated by IMPLAN at approximately $12.3 million. Federal tax revenues from Project construction are estimated by IMPLAN at approximately $25.6 million.

State and local tax revenues from ongoing Project operation are estimated by IMPLAN at approximately $2.0 million on an annual basis. Federal tax revenues from ongoing Project operation are estimated by IMPLAN at approximately $2.1 million on an annual basis. Tables 3.1 through 3.4 on the following pages provide additional detail on the composition of state, local, and federal taxes from Project construction and ongoing operations as estimated by IMPLAN.

3.2 Case Study Fiscal Revenue Analysis for the City of Los Angeles

As IMPLAN does not calculate all direct fiscal revenues to local cities, Kosmont performed additional case study fiscal revenue analysis to supplement the IMPLAN outputs outlined above. Based on Kosmont case study analysis, the Project is estimated to generate approximately $2.0 million in direct annual primary fiscal revenues for the City of Los Angeles.

To calculate the present value of these direct fiscal impacts to the City, the various revenues were projected for a 30-year period. Property tax (secured and unsecured), property tax in-lieu of VLF, and real property transfer tax were escalated using a 2% growth factor (statutory maximum). Sales and use tax and other revenue and expenditure sources were escalated using a 3.0% growth factor (based on Consumer Price Index). A discount rate of 3.0% was applied to estimate present value. Table 3.5 presents a summary of direct local fiscal revenue impacts. Specific fiscal revenue analysis methodology is discussed on the following pages.

Table 3.1 State and Local Tax Revenues from Project Construction as Estimated by IMPLAN

Description	Employee Compensation	Proprietor Income	Indirect Business Tax	Households	Corporations	Total
Dividends					$18,008	**$18,008**
Social Ins Tax- Employee Contribution	$124,677	$0				**$124,677**
Social Ins Tax- Employer Contribution	$245,128					**$245,128**
Indirect Bus Tax: Sales Tax			$3,405,486			**$3,405,486**
Indirect Bus Tax: Property Tax			$3,006,873			**$3,006,873**
Indirect Bus Tax: Motor Vehicle Lic			$74,425			**$74,425**
Indirect Bus Tax: Severance Tax			$2,161			**$2,161**
Indirect Bus Tax: Other Taxes			$508,010			**$508,010**
Indirect Bus Tax: S/L NonTaxes			$46,716			**$46,716**
Corporate Profits Tax					$377,992	**$377,992**
Personal Tax: Income Tax				$3,687,333		**$3,687,333**
Personal Tax: NonTaxes (Fines- Fees				$518,013		**$518,013**
Personal Tax: Motor Vehicle License				$155,747		**$155,747**
Personal Tax: Property Taxes				$58,416		**$58,416**
Personal Tax: Other Tax (Fish/Hunt)				$35,547		**$35,547**
Total State and Local Tax	**$369,805**	**$0**	**$7,043,670**	**$4,455,056**	**$396,000**	**$12,264,531**

Source: IMPLAN (2017)

Table 3.2 Federal Tax Revenues from Project Construction as Estimated by IMPLAN

Description	Employee Compensation	Proprietor Income	Indirect Business Tax	Households	Corporations	Total
Social Ins Tax- Employee Contribution	$4,976,149	$1,147,383				**$6,123,532**
Social Ins Tax- Employer Contribution	$6,485,637					**$6,485,637**
Indirect Bus Tax: Excise Taxes			$600,440			**$600,440**
Indirect Bus Tax: Custom Duty			$238,044			**$238,044**
Indirect Bus Tax: Fed NonTaxes			$68,216			**$68,216**
Corporate Profits Tax					$1,582,454	**$1,582,454**
Personal Tax: Income Tax				$10,470,211		**$10,470,211**
Total Federal Tax	**$11,461,790**	**$1,147,383**	**$906,700**	**$10,470,210**	**$1,582,454**	**$25,568,537**

Source: IMPLAN (2017)

Table 3.3 State and Local Tax Revenues from Ongoing Project Operation as Estimated by IMPLAN

Description	Employee Compensation	Proprietor Income	Indirect Business Tax	Households	Corporations	Total
Dividends					$4,179	**$4,179**
Social Ins Tax- Employee Contribution	$8,987	$0				**$8,987**
Social Ins Tax- Employer Contribution	$17,670					**$17,670**
Indirect Bus Tax: Sales Tax			$784,094			**$784,094**
Indirect Bus Tax: Property Tax			$692,316			**$692,316**
Indirect Bus Tax: Motor Vehicle Lic			$17,136			**$17,136**
Indirect Bus Tax: Severance Tax			$497			**$497**
Indirect Bus Tax: Other Taxes			$116,966			**$116,966**
Indirect Bus Tax: S/L NonTaxes			$10,756			**$10,756**
Corporate Profits Tax					$87,723	**$87,723**
Personal Tax: Income Tax				$227,511		**$227,511**
Personal Tax: NonTaxes (Fines- Fees				$31,962		**$31,962**
Personal Tax: Motor Vehicle License				$9,610		**$9,610**
Personal Tax: Property Taxes				$3,604		**$3,604**
Personal Tax: Other Tax (Fish/Hunt)				$2,193		**$2,193**
Total State and Local Tax	**$26,658**	**$0**	**$1,621,766**	**$274,880**	**$91,903**	**$2,015,207**

Notes: Estimated impacts upon build-out & stabilization. Source: IMPLAN (2017)

Table 3.4 Federal Tax Revenues from Ongoing Project Operation as Estimated by IMPLAN

Description	Employee Compensation	Proprietor Income	Indirect Business Tax	Households	Corporations	Total
Social Ins Tax- Employee Contribution	$358,711	$34,159				**$392,870**
Social Ins Tax- Employer Contribution	$467,524					**$467,524**
Indirect Bus Tax: Excise Taxes			$138,248			**$138,248**
Indirect Bus Tax: Custom Duty			$54,808			**$54,808**
Indirect Bus Tax: Fed NonTaxes			$15,706			**$15,706**
Corporate Profits Tax					$367,252	**$367,252**
Personal Tax: Income Tax				$646,018		**$646,018**
Total Federal Tax	**$826,236**	**$34,159**	**$208,763**	**$646,018**	**$367,252**	**$2,082,428**

Notes: Estimated impacts upon build-out & stabilization. Source: IMPLAN (2017)

Table 3.5 Case Study Direct Fiscal Revenue Impacts to the City of Los Angeles from Ongoing Project Operation

	Annual	Stabilized Escalation Rate	Year 0-30 Nominal Total	Year 0-30 Present Value @ 3.0% (CPI)
Primary General Fund Revenues				
Property Tax	$601,800	2.0%	$24,413,900	$15,270,300
Property Transfer Tax	$4,900	2.0%	$198,800	$124,300
Sales and Use Tax - Direct / On-Site	$35,400	3.0%	$1,684,200	$1,031,100
Sales and Use Tax - Indirect / Off-Site	$21,700	3.0%	$1,032,400	$632,000
Transient Occupancy Tax	$1,216,200	3.0%	$57,861,200	$35,423,300
Business Tax	$38,900	3.0%	$1,850,700	$1,133,000
Utility Users' Tax	$74,600	3.0%	$3,549,100	$2,172,800
Parking Users' Tax	$13,100	3.0%	$623,200	$381,600
Franchise Income	$5,000	3.0%	$237,900	$145,600
Estimated Total GF Revenues	**$2,011,600**		**$91,451,400**	**$56,314,000**
Reference: Estimated County Property and Sales Tax	*$892,849*	*2.0%*	*$36,221,200*	*$22,655,400*

Notes: Estimated impacts upon build-out and stabilization. All amounts in 2017 dollars.
Source: City of Los Angeles, County of Los Angeles Auditor-Controller, Urban Land Institute, International Council of Shopping Centers, American Hotel and Lodging Association, Riley Realty LP, U.S. Census Bureau, ESRI (2017)

3.2.1 Property Tax

Secured property tax revenues are estimated based on the anticipated assessed value of the Project upon full build-out and the applicable property tax rates for the City. The Site is located in Los Angeles County tax rate area ("TRA") 00200. The City general fund receives an approximate 32.71% share of the annual 1.0% secured property tax general levy placed by the County on the assessed value of the property ($0.3271 of each $1.00 of secured property tax revenue) within this TRA. Various County entities additionally receive secured property tax distributions totaling approximately 45% of the 1.0% general property tax levy.

Unsecured property taxes are collected based on the assessed value of real property not affixed to the underlying land, such as business fixtures, and some types of vehicles. The rate of taxation and apportionment is generally the same as for secured property taxes. For the purposes of this Analysis, the assessed value of unsecured property is estimated to be 3% of the assessed value of secured property for the Project.

3.2.2 Property Tax In-Lieu of Motor Vehicle License Fees ("MVLF")

Prior to 2004, a percentage of State motor MVLF was distributed to cities and counties. In 2005, the State of California instituted a revenue swap, guaranteeing that municipalities and counties within California receive a distribution equal to the MVLF collected the prior year, plus a percentage equal to the annual increase in assessed value. Property tax in-lieu of MVLF resulting from the Project is estimated based on the incremental amount of assessed value that the Project will add to the City, thereby increasing the City's apportionment.

3.2.3 Real Property Transfer Tax

Property transfer tax revenue is estimated based on the expected average rate of turnover of Project ownership of 5% (approximately once every 20 years), expected future sales price, and the City's property transfer tax of 0.055% of gross sales price.

3.2.4 Sales Tax (On-Site / Direct)

On-site / direct sales tax revenue projections are estimated based on the taxable sales generated on-site within the sales-generating components of the Project and the City's sales tax apportionment of 1.0%. Project components are projected to generate taxable sales based on estimated square-footage and standard industry sales-per-square-foot assumptions (approximately $250 annually per sales-generating square foot).

3.2.5 Sales Tax (Off-Site / Indirect)

Off-site / indirect sales tax revenue projections are estimated based on the taxable sales generated by the spending of Project employees, residents, and guests off-site within the City. Spending is based on published documentation by the International Council of Shopping Centers ("Office Worker Retail Spending Patterns: A Downtown and Suburban Area Study") and the American Hotel and Lodging Association. Capture rates for spending by employees and guests within the City are approximated by Kosmont based on preliminary evaluation of existing retail amenities within the local trade area and preliminary analysis of the City's taxable retail sales performance relative to neighboring jurisdictions.

3.2.6 Use Tax

In addition to sales tax, the City receives use tax revenues, which are levied on shipments into the State and on construction materials for new development not allocated to a situs location. Use tax is allocated by the Board of Equalization to counties and cities based on proportion of countywide and statewide direct taxable sales. Use tax revenues to the City are estimated at 13.2 percent of point-of-sale taxable sales based on calendar year 2015 apportionments of citywide, countywide, and statewide taxable sales.

3.2.7 Transient Occupancy Tax ("TOT")

TOT revenues are estimated based on number of hotel rooms within the Project, room rate (approximately $250 per room-night) and occupancy (approximately 70% upon stabilization) assumptions based on preliminary review of existing surrounding hotels in the immediate Project area and the City's TOT rate of 14.0%.

3.2.8 Multiplier Fiscal Revenue Analysis

Business tax, utility users' tax, parking users' tax, and franchise income are estimated on a per capita basis based on the City Fiscal Year 2016-2017 Adopted Budget and the relevant resident and employee populations within the City. For the purpose of revenue budget allocation, total employees within the City are multiplied by an equivalency factor of 0.5 to arrive at a number of equivalent residents to be considered along with actual City residents as the service population for certain City revenues.

Exhibit 6 Greenhouse Gas Emissions Methodology and Documentation

Draft

GREENHOUSE GAS EMISSIONS METHODOLOGY AND DOCUMENTATION FOR THE 6220 WEST YUCCA PROJECT

Application for CEQA Streamlining Under the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.)

Prepared for
Champion Real Estate Company
11620 Wilshire Boulevard
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April 2017

ESA

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1.0
Executive Summary

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the Yucca Mixed-Use project ("the project") and to demonstrate that the project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act ("the Act") (Public Resources Code Section 21178 et seq.), also referred to as Assembly Bill (AB) 900. In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. In 2016, Senate Bill (SB) 734 was signed, which extend the authority of the Governor to certify a project to January 1, 2018 and provides that the certification expires and is no longer valid if the lead agency fails to approve a certified project before January 1, 2019. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c).

The project is located at 6220 West Yucca Street in the Hollywood community of the City of Los Angeles. The approximately 1.16-acre project site occupies a parcel on Yucca Street ("the project site"). The property currently contains two single-family residences (one single-family residence operates as a multi-family duplex) and three, two-story apartment buildings (for a total of one single-family and 43 multi-family residences) and associated carports and paved surface parking areas. The existing uses would be demolished and removed from the site.

The proposed mix of uses would be developed within two buildings: Building 1 with a mix of residential, hotel and commercial/restaurant uses; and Building 2 with only residential uses. Each building would provide parking for its proposed uses. The total development would include 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses. Parking for Building 1 would be provided within a six-level parking structure housed within the podium structure of Building 1 and a two-level parking structure housed within Building 2. The project would also provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16. Construction of the project would be completed over approximately two years.

Under the Baseline Condition, the site generates approximately 625 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year. This excludes any one-time construction GHG emissions that were generated when the existing uses and related infrastructure were originally built. Construction of the project would generate one-time GHG emissions of approximately 1,466 $MTCO_2e$, during the first year, and 779 $MTCO_2e$ during the second year. At project buildout, emissions of approximately 5,031 $MTCO_2e$ would be generated during the first full year of operation. Compared to the Baseline Condition, the project's operational GHG emissions represent a net increase in GHG emissions from the site of approximately 4,405 $MTCO_2e$ during the first full year of operation. The net project operational GHG emissions would decline in future years primarily as a result of vehicle fleet turnover and as utilities provide a greater percentage of electricity from renewable sources. However, the project will obtain GHG offsets that would allow the project to have no net increase in GHG emissions. Future year emissions would decline as a greater percentage of motor vehicles meet more stringent emissions standards, including the Pavley Phase I and Phase II emissions standards, and the a greater percentage of electricity is provided by renewable sources in accordance with the Renewables Portfolio Standard, which requires 50 percent renewable electricity by 2030. As a result, the project would generate decreased GHG emissions in future years and would require decreased offsets to achieve no net increase in GHG emissions.

Based on this assessment, the project would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). Therefore, the project would meet the GHG emissions requirements for streamlined environmental review under CEQA.

2.0
Introduction

2.1 Purpose

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the project and to demonstrate that the project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act ("the Act") (Public Resources Code Section 21178 et seq.). This assessment describes the methodology used to estimate the GHG emissions from baseline and project conditions, provides an estimate of the net change in GHG emissions for the project as compared to baseline conditions, and describes the methodology used to quantify GHG emission reductions from project design features and mitigation measures. The following baseline and project-related emission sources have been evaluated:

- Construction Activities – Fossil fueled on- and off-road vehicles and equipment needed for demolition, mass and fine grading, building construction, paving, and architectural coating;

- Direct Emission Sources – Consumption of natural gas on-site for cooking, space heating and water heating, combustion of fossil fuels for lawn care and maintenance activities, and motor vehicles including employee transportation; and

- Indirect Emission Sources – Off-site electricity generation, wastewater treatment and water conveyance, and solid waste disposal.

2.2 Site Location, Existing Uses, and Project Description

The project is located at 6220 West Yucca Street in the Hollywood community of the City of Los Angeles approximately five miles northwest of Downtown Los Angeles. The 1.16-acre project site occupies a parcel on Yucca Street. The project site is bounded by Yucca Street, the Argyle Hotel project construction site, and 3-story residential lofts to the north; North Vista Del Mar Avenue and 1- and 2-story single-family residences and duplexes to the east; vacant land (former Little Country Church of Hollywood) and 1- and 2-story single-family residences and duplexes followed by a 5-story mixed-use residential and commercial development to the south; and Argyle Avenue and commercial uses to the west. The property currently contains two single-family residences (one single-family residence operates as a multi-family duplex) and three, two-story apartment buildings (for a total of one single-family and 43 multi-family residences) and

associated carports and paved surface parking areas. The existing uses would be demolished and removed from the site.

The project would consist of two buildings over a single podium structure: one, 20-story high-rise tower as measured from Yucca Street (Building 1) and one, 4-story building along Yucca Street and Vista Del Mar Avenue (Building 2). Building 1, located on the corner of Yucca Street and Argyle Avenue, would include a mix of residential, hotel and commercial/restaurant uses while the adjoining Building 2 would contain residential uses. The total development would include 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses. Parking would be provided on-site within the six-level parking structure housed within the podium structure of Building 1 and the two-level parking structure housed within Building 2. The project would also provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16

Construction of the project would be completed over an approximately two-year period. The project would export approximately 120,000 cubic yards of soil and generate approximately 5,000 cubic yards of demolition debris (asphalt, interior and exterior building demolition, and general construction debris).

The project site and surrounding uses are shown in **Figure 1**. The site plan for the project is provide in **Figure 2**.

2.3 Jobs and Economic Improvement Through Environmental Leadership Act

In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). For purposes of California Public Resources Code Section 21183(c) the following process applies:

1. The applicant shall submit electronically to AB900ARBsubmittals@arb.ca.gov a proposed methodology for quantifying the project's net additional GHG emissions. The CARB will review and comment on the methodology, at its discretion, within 30 days of submission.

2. At the same time, the applicant shall submit to AB900ARBsubmittals@arb.ca.gov documentation that the project does not result in any net additional GHG emissions. The documentation must at least quantify:

a. Both direct and indirect GHG emissions associated with the project's construction and operation, including emissions from the project's projected energy use and transportation related emissions; and

b. The net emissions of the project after accounting for any mitigation measures that will be monitored and enforced consistent with Public Resources Code section 21183(d).

3. Within 60 days of receiving the documentation (in 2. above), the CARB will determine whether the condition specified in Public Resources section 21183(c) has been met or, if more time is needed, notify the applicant of the expected completion date.

4. The CARB will determine and report to the Governor in writing that a project does not result in any net additional emissions of greenhouse gases if the project demonstrates through a combination of project design features, compliance with (or exceeding minimum requirements of) existing regulations, and mitigation that it would result in zero additional greenhouse gas emissions.



PCR

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0 100 200 Feet

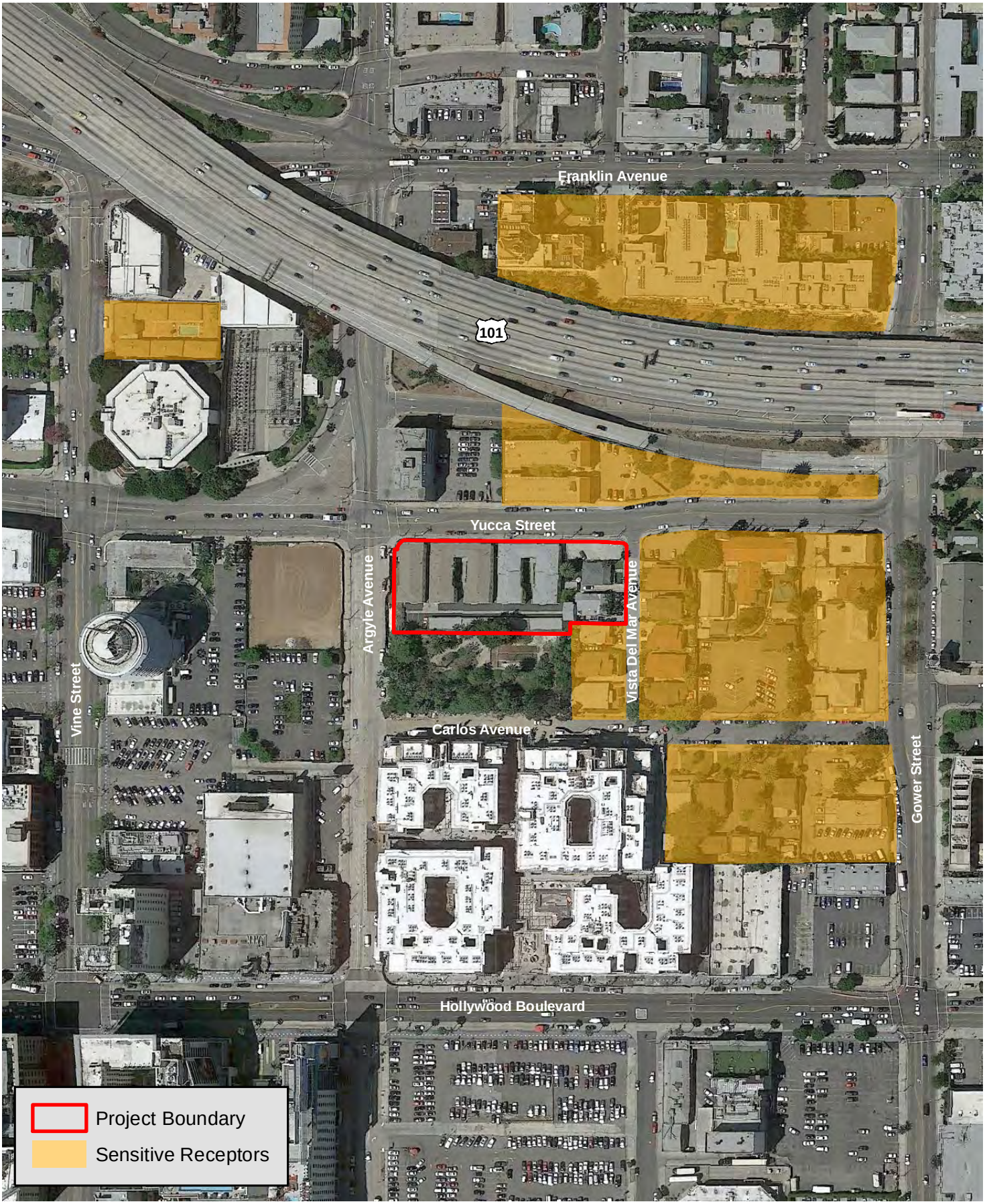
Aerial Photograph of Project Site and Vicinity

6220 West Yucca Project

Source: Google Earth, 2014-04-23 (Aerial); PCR Services Corporation, 2015.

FIGURE

1



N

0 100 200 Feet

Sensitive Receptor Locations Nearest to the Project Site

6220 West Yucca Project

Source: Google Earth, 2014-04-23 (Aerial); PCR Services Corporation, 2015.

FIGURE

2

3.0
Greenhouse Gas Emissions

3.1 Global Climate Change and Greenhouse Gases

The natural process through which heat is retained in the troposphere[1] is called the "greenhouse effect." The greenhouse effect traps heat in the troposphere through a three-fold process as follows: (1) short wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave radiation re-emitted by the Earth; and (3) GHGs in the atmosphere absorbing or trapping the long-wave radiation and re-emitting it back towards the Earth and into space. This third process is the focus of global climate change actions.

The most commonly emitted GHG from anthropogenic (i.e., human) activities is carbon dioxide (CO_2). 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 (CO_2e). Mass emissions are calculated by converting pollutant-specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value.[2] 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 are currently in use by the State of California for official GHG emission inventory purposes. By applying the GWP ratios, project-related CO_2e emissions can be tabulated in metric tons of CO_2e ($MTCO_2e$) per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. The CO_2e 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.

- Carbon Dioxide (CO_2): CO_2 is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO_2 is the reference gas (GWP of 1) for determining the GWPs of other GHGs.

[1] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[2] GWPs and associated CO2e values were developed by 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 California Air Resources Board (CARB) has begun reporting GHG emission inventories for California, starting with the 2012 inventory, using the GWP values from the IPCC AR4.

- Methane (CH_4): CH_4 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 CH_4 is 21 in the IPCC SAR and 25 in the IPCC AR4.

- Nitrous Oxide (N_2O): N_2O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary 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.

- 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 GWPs of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23 in the IPCC SAR and 124 to 14,800 in the IPCC AR4.

- 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.

- 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.

The Climate Registry (TCR) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities.[3] No specific protocols are available for land use development projects; however, the General Reporting Protocol has been adapted to address the land use development GHG emissions in this assessment. The information provided in this assessment is generally consistent with the General Reporting Protocol minimum reporting requirements. The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

- Scope 1: Direct GHG emissions from human activity (e.g., stationary combustion of fuels, mobile combustion of fuels in transportation).

- Scope 2: Indirect GHG emissions associated with activities of the reporting entity but occur at sources controlled by another entity (e.g., purchased electricity or purchased steam).

- Scope 3: Indirect emissions associated with other emissions sources, such as employee commute and business travel and waste disposal.

According to the California Air Resources Board (CARB), the consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities

[3] The Climate Registry, General Reporting Protocol, Version 2.1, (2016).

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.[4] 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 consumption, water usage and construction activities."[5] Therefore, direct and indirect emissions are considered in this assessment.

3.2 Baseline Operational Emissions

3.2.1 Description of Baseline Condition

The project site encompasses approximately 1.16 acres of land area currently occupied by two single-family residences and three, two-story apartment buildings and associated carports, as shown in Figure 1. The majority of the buildings were originally constructed between 1915 and the 1950s and some repair work was completed in the 1970s. The project would demolish and removed the existing structures and associated infrastructure from the project site and the existing uses would be vacated prior to construction and would cease to operate. Therefore, the GHG emissions from the existing site uses would not occur contemporaneously with either project construction emissions or project operational emissions. The square footage for these existing land uses are provided in **Table 1**.

TABLE 1
BASELINE CONDITION FLOOR AREA

Land Use	Number of Units	Square Feet (sqft)
Multi-Family Residential	43	18,952
Single-Family Residential	1	1,367
Parking Lot/Hardscape Areas	—	28,000

SOURCE: Champion Real Estate Company / Togawa Smith Martin, Inc., 2016.

4 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).

5 Office of Planning and Research, Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review, (2008) 5.

3.2.2 GHG Emission Sources and Calculation Methodology

Construction

The project site is currently built-out. Construction of the buildings and associated parking areas and infrastructure resulted in one-time GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O from heavy-duty construction equipment, haul trucks, and worker vehicles. However, sufficient detail is not available with respect to the construction schedule, equipment usage, and number of haul trips to provide a quantitative construction GHG emissions assessment for the Baseline Condition. Therefore, construction-related GHG emissions are not included for the Baseline Condition. This is a conservative approach since, by excluding the Baseline Condition construction-related GHG emissions, the project would need to provide slightly greater GHG reductions in order to meet the requirements of AB 900 of no net additional GHG emissions.

Operational Energy – Electricity

The generation of electricity in California is achieved through the combustion of fossil fuels, primarily natural gas, using steam boilers, internal combustion engines, and combustion turbines. A portion of the electricity in California is imported from outside the state and is derived from the combustion of coal and other non-gaseous fossil fuels. The combustion of fossil fuels to produce electricity results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. These emissions occur due to the electrical demand of the existing land uses that currently operate on the project site. The electricity generation occurs off-site; therefore, electricity use results in GHG emissions that are considered to be indirect.

Emissions of GHGs associated with the Baseline Condition energy demand are based on the size of the hospital, administration, and supporting land uses, the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions in units of $MTCO_2e$ are generally calculated as follows:

Electricity:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_E \times EF_E \times GWP)_i \right) \div 2204.62 \quad \textbf{[Equation 1]}$$

Where:
- Units = Number of land use units (same land use type) [dwelling unit (DU) or 1000 sqft]
- D_E = Electrical demand factor [megawatt-hour (MWh)/DU or 1000 sqft/year]
- EF_E = GHG emission factor [pounds per megawatt-hour (MWh)]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 2204.62 = Conversion factor [pounds/MT]
- i = Summation index

Electrical demand is based on data from the California Energy Commission (CEC) *California Commercial End Use Survey* (CEUS), which lists energy demand by building type,[6] as incorporated into the California Emissions Estimator Model (CalEEMod).[7] The data from the CEUS is from 2002. Since 1978, the CEC has established building energy efficiency standards, which are updated periodically. CalEEMod (version 2016.3.1) incorporates correction factors to account for the 2013 Title 24 Building Energy Efficiency Standards. The existing buildings on the project site were built in the 1900s (as early as 1915 through the 1950s with some repair work in the 1970s). Thus, the building electricity usage rates are adjusted to account for the prior 2001 Title 24 Building Energy Efficiency Standards.[8] This is considered a conservative adjustment because the existing buildings were built prior to implementation of the 2001 Standards and thus would have been built to a less stringent energy standard and data is not readily available to adjust usage factors prior to the 2001 Standards. Parking lot and hardscape areas result in electricity usage due to lighting needs and were included as sources.

The Los Angeles Department of Water and Power (LADWP) provides electric service to the project site. Emission factors for GHGs due to electrical generation to serve the electrical demands of the Baseline Condition were obtained from the LADWP 2016 Draft Power Integrated Resource Plan, which provides a CO_2 intensity of 1,132 pounds of CO_2 per MWh in 2015 (the most recent year for which data is provided).[9] LADWP has achieved average renewable energy sales of approximately 20 percent for the 2010 through 2013 period.[10] Emission factors for CH_4 and N_2O were obtained from CalEEMod.[11]

The estimated annual emissions from electrical demand from the Baseline Condition are provided in **Table 2**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 2
BASELINE CONDITION ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
Existing Site						
Multi-Family	18.95	157.69	1,132	0.029	0.0062	81.1
Single-Family	1.37	7.28	1,132	0.029	0.0062	3.7
Parking/Hardscape	28.00	24.64	1,132	0.029	0.0062	12.7
Subtotal						**98**

6 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017

7 See: http://www.caleemod.com.

8 California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

9 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

10 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-1.

11 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

NOTES:

[a] California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors are extrapolated based on the technical source documentation.

[b] Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Energy – Natural Gas

The existing land uses under the Baseline Condition utilize natural gas primarily for heating needs. Natural gas is also used for cooking. The combustion of natural gas results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The combustion of natural gas occurs on-site; therefore, the associated GHG emissions are considered to be direct.

The emissions of GHGs associated with natural gas combustion under the Baseline Condition are based on the size of the existing land uses, the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu), the GHG emission factors for natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions in units of $MTCO_2e$ are generally calculated as follows:

Natural Gas:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_{NG} \times EF_{NG} \times GWP)_i \right) \div 2204.62 \quad \textbf{[Equation 2]}$$

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- D_{NG} = Natural gas combustion factor [MMBtu/DU or 1000 sqft/year]
- EF_{NG} = GHG emission factor [pounds/MMBtu]
- GWP = Global warming potential [CO_2 = 1, CH_4 = 25, N_2O = 298]
- 2204.62 = Conversion factor [pounds/MT]
- i = Summation index

Similar to the electricity calculations, natural gas demand is based on data from the CEUS, which lists energy demand by building type, as incorporated into CalEEMod. As discussed previously, the existing buildings on the project site were built in the 1900s (as early as 1918 through the 1950s with some repair work in the 1970s). Thus, the building natural gas usage rates are adjusted to account for the prior 2001 Title 24 Building Energy Efficiency Standards. This is considered a conservative adjustment because the existing buildings were built prior to implementation of the 2001 Standards and thus would have been built to a less stringent energy standard and data is not readily available to adjust usage factors prior to the 2001 Standards. Parking lot and hardscape areas do not result in natural gas combustion and were excluded as sources.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Baseline Condition were obtained from CalEEMod, which provides statewide emission factors.

The estimated annual emissions from natural gas combustion from the Baseline Condition are provided in **Table 3**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 3
BASELINE CONDITION NATURAL GAS GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_{NG} (MMBtu/year) [a]	Emission Factor, EF_{NG} (pounds/MMBtu)			Annual GHG Emissions ($MTCO_2e$/year) [c]
			CO_2 [b]	CH_4 [b]	N_2O [b]	
Existing Site						
Multi-Family	18.95	706.30	117.65	0.0023	0.0022	37.9
Single-Family	1.37	36.50	117.65	0.0023	0.0022	2.0
Subtotal						**40**

NOTES:

[a] California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors are extrapolated based on the technical source documentation.

[b] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Mobile

Mobile source emission calculations associated with the Baseline Condition are calculated using vehicle miles traveled (VMT) from the traffic analysis prepared for the project.[12] The estimated VMT in the traffic analysis is based on average trip lengths for each land use were determined using CalEEMod. The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work (H-W), home-shop (H-S), and home-other (H-O). Commercial trips include commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type and accounting for applicable reductions from proximity to transit and other VMT-reducing land use characteristics.

The analysis is also based on the CARB on-road vehicle emissions factor model (EMFAC). EMFAC2014 "represents ARB's current understanding of motor vehicle travel activities and their

[12] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017.

associated emission levels."[13] Emissions of GHGs associated with mobile sources under the Baseline Condition are based on the average daily trip rate, trip distance, the GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. The types of vehicles that visit the project site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the Baseline Condition was conducted using the vehicle fleet mix for the South Coast Air Basin for all vehicle types as provided in EMFAC2014.

Emission factors were obtained from EMFAC2014, which was run in the emissions mode (also referred to as the "Burden" mode) and used to generate South Coast Air Basin-specific vehicle fleet emission factors in units of grams or metric tons per mile, which is the same methodology used by CalEEMod. Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing project site. The emissions were calculated using a representative motor vehicle fleet mix for year 2015 as provided in EMFAC2014. Mobile source emissions are the product of the CalEEMod estimated VMT and the EMFAC2014 emission factors. The estimated annual emissions from mobile sources from the Baseline Condition are provided in **Table 4**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 4
BASELINE CONDITION MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Land Use	Fleet Mix	Estimated Annual VMT [a]	Annual GHG Emissions ($MTCO_2e$/year)
Existing Site			
Multi- and Single-Family	South Coast Air Basin Fleet Mix (Existing Conditions)	939,145	454
Subtotal			**454**

NOTES:

[a] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017. Based on the estimated daily VMT multiplied by 365 days per year.

SOURCE: ESA 2017.

Operational Solid Waste

The existing land uses under the Baseline Condition generate municipal solid waste (MSW) from day-to-day operational activities, which generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, paper, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills

[13] California Air Resources Board, Mobile Source Emissions Inventory, http://www.arb.ca.gov/msei/categories.htm#emfac2014. Accessed January 2017.

results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal under the Baseline Condition are calculated using CalEEMod. The emissions are based on the size of the existing land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ are generally calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_{MSW} \times EF_{MSW} \times GWP)_i \right) \div 1.1023$$

[Equation 3]

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- D_{MSW} = Waste disposal rate [tons/DU or 1000 sqft/year]
- EF_{MSW} = GHG emission factor [tons/ton waste]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 1.1023 = Conversion factor [tons/MT]
- i = Summation index

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. Annual waste disposal rates used in CalEEMod are based on data from the California Department of Resources Recycling and Recovery (CalRecycle).[14] The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of approximately 76 percent, according to the most recent data available.[15] The GHG emission factors, particularly for CH_4, 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), which are statewide averages, are used in this assessment.

The estimated annual emissions from solid waste disposal from the Baseline Condition are provided in **Table 5**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 5
BASELINE CONDITION SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use	Waste Diversion Rate [a]	Waste Disposal after Diversion, D_{MSW} (tons/year) [b]	Annual GHG Emissions ($MTCO_2e$/year) [c]
Existing Site			
Multi-Family	76%	23.03	11.58

[14] CalRecycle, Estimated Solid Waste Generation Rates. Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed January 2017.
[15] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

Single-Family	76%	0.54	0.27
Subtotal			**12**

NOTES:

[a] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

[b] Waste generation factors for the land uses are from the CalRecycle (formerly Integrated Waste Management Board), Estimated Solid Waste Generation Rates, Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed October 2015.

[c] Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the Baseline Condition requires energy to supply, distribute and treat. The combustion of fossil fuels to produce electricity results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The electricity generation occurs off-site; therefore, the electricity use from water and wastewater results in GHG emissions that are considered to be indirect. Wastewater also results in emissions of GHGs from wastewater treatment systems (e.g., septic, aerobic, or lagoons) as well as from solids that are digested either through an anaerobic digester or with co-generation from combustion of digester gas.

The emissions of GHGs associated with water demand and wastewater generation under the Baseline Condition are calculated using CalEEMod. The emissions are based on the size of the existing land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_W \times (EI_W \div 1000) \times EF_W \times GWP)_i \right) \div 2204.62$$

[Equation 4]

Where:

Units	=	Number of land use units (same land use type) [DU or 1000 sqft]
D_W	=	Water demand factor [million gallons (Mgal)/DU or 1000 sqft/year]
EI_W	=	Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
1000	=	Conversion factor [kWh/MWh]
EF_W	=	GHG emission factor [pounds/MWh]
GWP	=	Global warming potential [CO_2 = 1, CH_4 = 25, N_2O = 298]
2204.62	=	Conversion factor [pounds/MT]
i	=	Summation index

The estimated water demand is based on usage factors from the City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR) report.[16] Parking lot and hardscape areas typically result outdoor water usage for cleaning purposes and were included as sources.

The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report Refining Estimates of Water-Related Energy Use in California, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.[17] The same electricity GHG emissions factors discussed under the **Operational Energy – Electricity** subheading are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the California Emissions Estimator Model User's Guide, Appendix A.[18] As stated in the User's Guide, the GHGs emitted from each type of wastewater treatment are based on the CARB's Local Government Operations Protocol (LGOP),[19] which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.[20] The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

The estimated annual emissions from water and wastewater from the Baseline Condition are provided in **Table 6**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 6
BASELINE CONDITION WATER AND WASTEWATER GAS GREENHOUSE GAS EMISSIONS

Land Use	Water Demand, D_W (gal/year) [a]	Electricity Intensity Factor, EI_W (kWh/Mgal) [b]				Annual GHG Emissions ($MTCO_2e$/year) [c]
		Supply	Treat	Distribute	Treatment	
Existing Site						
Multi-Family	2,336,730	9,727	111	1,272	1,911	17.9
Single-Family	81,030	9,727	111	1,272	1,911	0.6
Parking/Hardscape	245,280	9,727	111	1,272	1,911	1.4
Subtotal						**20**

16 City of Los Angeles, Bureau of Engineering, Sewer Capacity Availability Request (SCAR), January 2017.
17 California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).
18 California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, (2016).
19 California Air Resources Board, Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008).
20 United States Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008).

NOTES:

[a] City of Los Angeles, Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Provided in the L.A. CEQA Thresholds Guide, (2006) M.2-22-M.2-26. Water demand rates are derived based on the wastewater generation rates.

[b] California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Area and Stationary

Area sources of GHG emissions resulting from the operation of the existing land uses at the project site under the Baseline Condition include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The emissions occur on-site and are a direct result of activity from the existing land uses; therefore, the GHG emissions are considered to be direct. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers.

The emissions of GHGs associated with operational area sources under the Baseline Condition are calculated using CalEEMod. The emissions for landscaping equipment are based on the size of the hospital, administrative, and support land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of $MTCO_2e$ are generally calculated in CalEEMod as follows:

Landscaping Equipment:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times EF_{LE} \times A_{LE} \times GWP)_i \right) \div 10^6 \qquad \textbf{[Equation 5]}$$

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- EF_{LE} = GHG emission factor [grams (g)/DU or 1000 sqft/day]
- A_{LE} = Landscaping equipment operating days per year [day/year]
- GWP = Global warming potential [CO_2 = 1, CH_4 = 25, N_2O = 298]
- 10^6 = Conversion factor [g/MT]
- i = Summation index

CalEEMod uses landscaping equipment GHG emission factors from the CARB off-road equipment emissions factor model (OFFROAD) and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.[21] CalEEMod estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

[21] California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003),

The estimated annual emissions from area and stationary sources under the Baseline Condition are provided in **Table 7**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 7
BASELINE CONDITION AREA AND STATIONARY SOURCE GREENHOUSE GAS EMISSIONS

Land Use	Source	Annual GHG Emissions ($MTCO_2e$/year) [c]
Existing Site		
Multi- and Single-Family	Landscaping Equipment	2
Subtotal		**2**

SOURCE: ESA 2017.

Summary of Baseline Condition GHG Emissions

A summary of the GHG emissions under the Baseline Condition is provided in **Table 8**.

TABLE 8
BASELINE CONDITION SUMMARY OF ANNUAL GREENHOUSE GAS EMISSIONS

Source	Annual GHG Emissions ($MTCO_2e$/year) [a]
Existing Site	
Electricity	98
Natural Gas	40
Mobile	454
Solid Waste	12
Water and Wastewater	20
Area and Stationary	2
Total	**626**

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations.

SOURCE: ESA 2017.

http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_ act.pdf. Accessed January 2017.

3.3 Project Construction and Operational Emissions

3.3.1 Description of Project Condition

The project would demolish all existing buildings and surface parking/hardscape on the site (approximately 20,319 square feet of building floor area and approximately 28,000 square feet of surface parking/hardscape). The project would construct approximately 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses.

For the purposes of this assessment, in order to provide a comparison of the project's GHG emissions with the Baseline Condition, and to assess future GHG emissions trends of the project, emissions of GHGs are estimated for the project's construction and operational lifetime. Within the project's operational lifetime, there are several key milestone years. The milestone years correspond to the following circumstances:

- 2021: Expected initial operational year (electric utilities, including LADWP, are expected to supply a minimum of 33 percent of electricity via renewable sources during this year);
- 2024: The year in which electric utilities, including LADWP, are expected to supply a minimum of 40 percent of electricity via renewable sources;
- 2025: The year in which the model year 2017-2025 light-duty vehicle GHG emissions and Corporate Average Fuel Economy standards are to be fully implemented for new vehicles;
- 2027: The year in which electric utilities, including LADWP, are expected to supply a minimum of 45 percent of electricity via renewable sources;
- 2030: The year in which electric utilities, including LADWP, are expected to supply a minimum of 50 percent of electricity via renewable sources.

3.3.2 GHG Emission Sources and Calculation Methodology

Construction

Construction of the project would result in one-time GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O from heavy-duty construction equipment, haul trucks, and worker vehicles. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and on-road emissions factors. The emissions are estimated using the CalEEMod tool, which incorporates the CARB off-road equipment emissions factor model (OFFROAD) and on-road vehicle emissions factor model (EMFAC). The output values used in this analysis are adjusted to be project-specific based on equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for

each construction year. The CalEEMod tool provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Since a construction contractor(s) has not yet been retained for the project, specific equipment specifications are not yet known. Therefore, recommended default equipment and vehicle horsepower ratings and load factors provided in CalEEMod are used in this assessment. This assessment also assumes equipment would operate for 8 hours during a workday.

Construction of the project would occur over a number of phases and include activities such as demolition, debris and soil hauling, building construction, architectural coating, and paving. Information regarding the activities that would occur during these phases is provided below:

- **Demolition:** This first phase is anticipated to begin as early as 2018 and last for just under one month (approximately three weeks). If construction commences at a later date, this assessment would be considered conservative as future year emission factors tend to decline in future years. Construction equipment would include an excavator, dozers concrete saw, tractors/loaders/backhoes, haul trucks, and other construction equipment.

- **Site Preparation:** This phase is anticipated to begin after the demolition phase and last for approximately one to two weeks. Construction equipment would include tractors/loaders/backhoes and rubber tired dozers.

- **Grading and Excavation:** This phase is anticipated to begin after the site preparation phase and last for approximately four months. Construction equipment would include a drill rig, excavators, dozer, loader, scraper, tractors/loaders/backhoes, haul trucks, and other equipment. Up to approximately 120,000 cubic yards of soil, based on conservative measurements, would be excavated and exported.

- **Building Construction:** This phase is anticipated to begin after grading and last for approximately 17 months. During this phase, the parking structure and residential and commercial buildings would be constructed. Construction equipment would include forklifts, crane, tractors/loaders/backhoes, generator, welders, concrete pump, concrete trucks, and other construction equipment.

- **Paving:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, paving materials would be poured during construction of the buildings and related features and the surfaces would be paved. Construction equipment would include concrete trucks, paving equipment, and other equipment.

- **Architectural Coating:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, the interior and exterior coating would be applied to the residential and commercial buildings. Specific coating equipment would include an air compressor.

The emissions of GHGs associated with construction of the project were calculated for each year of construction activity. Detailed emissions calculations are provided in **Appendix B**. Results of the GHG emissions calculations are presented in **Table 9**, *Estimated Unmitigated Project Construction Greenhouse Gas Emissions*. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to them when assessing all of the long-term GHG emissions associated with a project.

TABLE 9
ESTIMATED UNMITIGATED PROJECT CONSTRUCTION GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions [a]
Construction Year 1	1,466
Construction Year 2	779

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in **Appendix B**.

SOURCE: ESA 2017.

Operational Energy – Electricity

Electricity-related emissions of GHGs associated with operation of the project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions are calculated using the general formula shown previously as **Equation 1**. For residential land uses, emission factors are specified in units of dwelling units (DU). For nonresidential land uses, emission factors are specified in units of 1,000 square feet. This assessment also includes electricity-related GHG emissions from the proposed enclosed parking structure, which would include elevators, lighting, and a ventilation system.

Electricity demand is based on data from the CEUS, which lists energy demand by building type.[22] However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2013 Title 24 Building Standards Code. Since the project would be required to meet the Title 24 standards in effect at the time of building permit application, this analysis incorporates an additional correction factor to account for the updated 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017. The additional Title 24 regulated energy correction factor applies a 5 percent increased energy efficiency for nonresidential land uses and a 28 percent increased efficiency for residential land uses compared to the 2013 Title 24 Building Standards Code.[23]

The project would be designed to incorporate Project Design Features (PDFs) that would reduce its energy demand with the goal of achieving or exceeding the requirements of the State of California Green Building Standards (CALGreen) Code, the City of Los Angeles Green Building Code, and the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Silver rating. The project would also include a minimum of 30 kilowatts of photovoltaic panels on the project site, which would be estimated to provide

[22] California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017

[23] The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, ,http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf). Accessed January 2017.

approximately 47,478 kilowatt-hours of electricity per year, based on region-specific data from the United States Department of Energy, National Renewable Energy Laboratory (NREL).[24] Therefore, electricity provided by 30 kilowatts of on-site photovoltaic panels would provide approximately 47,478 kilowatt-hours of renewable electricity per year, which would offset approximately 1.72 percent of the project's estimated annual electricity demand of 2,754,321 kilowatt-hours per year. Thus, the project would reduce its electricity demand as compared to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the "mitigation measures" section of the model or applying the appropriate reductions after modeling (i.e., reducing the annual GHG emissions from electricity demand by approximately 1.72 percent from 30 kilowatt photovoltaic panels). Green building measures that would result in quantifiable reductions in GHG emissions would include, but are not limited to the following:

Green Building Measures: The project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. Green building measures would include, but are not limited to the following:

- The project would implement a construction waste management plan to recycle and/or salvage a minimum of 50 percent of nonhazardous construction debris.
- The project would be designed to optimize energy performance and reduce building energy cost by a minimum of 5 percent for new construction compared to the Title 24 Building Energy Efficiency Standards (2016).
- The project would be designed to optimize energy performance and reduce building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent.
- The project shall provide a minimum of 30 kilowatts of photovoltaic panels on the project site, unless additional kilowatts of photovoltaic panels become feasible due to additional area being added to the project site.
- The residential units within the project shall not include the use of natural gas-fueled fireplaces.
- The project would include double-paned windows to keep heat out during summer months and keep heat inside during winter months.
- The project would include lighting controls with occupancy sensors to take advantage of available natural light.
- The project would reduce outdoor potable water use by a minimum of 20 percent compared to baseline water consumption. Reductions would be achieved through drought-tolerant/California native plant species selection, irrigation

[24] U.S. Department of Energy, National Renewable Energy Laboratory, PVWatts Calculator. Available: http://pvwatts.nrel.gov/pvwatts.php. Accessed March 2017.

system efficiency, alternative water supplies (e.g., stormwater retention for use in landscaping), and/or smart irrigation systems (e.g., weather-based controls).

- The project would reduce indoor potable water use by a minimum of 20 percent compared to baseline or standard water consumption by installing water fixtures that exceed applicable standards.

- The project would provide on-site recycling areas, consistent with City of Los Angeles strategies and ordinances, with the goal of achieving 70 percent waste diversion by 2020, and 90 percent by 2025.

- To encourage carpooling and the use of electric vehicles by project residents and visitors, the Applicant shall designate a minimum of eight (8) percent on on-site parking for carpool and/or alternative-fueled vehicles and shall pre-wire, or install conduit and panel capacity for, electric vehicle charging stations for a minimum of five (5) percent of on-site parking spaces.

The LADWP provides electric service to the project site. Currently, LADWP provides 20 percent of electricity via renewable sources.[25] LADWP is required to provide an increasing percentage from renewable sources in compliance with the Renewables Portfolio Standard with 33 percent by 2020, 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. During calendar year 2015, 37 percent of the energy delivered to LADWP customers was generated from two coal-fired generating stations: the Intermountain Power Project (IPP), located in Utah, and the Navajo Generating Station (NGS), located in Arizona. These stations provide base load generation to Los Angeles; however, they emit about twice as much CO_2 as energy generated from natural gas.[26] On July 1, 2016, LADWP sold its 477 MW share in NGS to Salt River Project, three and a half years before the operating agreement and land lease expires in December 2019.[27] The reduction in LADWP's CO_2 intensity from this sale is not reflected in the 2015 CO_2 intensity factor above. LADWP continues to focus on early coal replacement options as a means to lower LADWP's CO_2 emission levels and increase renewable sources in accordance with the Renewables Portfolio Standard.

Based on data obtained from CARB staff, "[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] CO_2/MWh may be used."[28] 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."[29] Therefore, consistent with the CARB staff recommendation, a CO_2 intensity factor of 595 pounds of CO_2 per MWh was used for electricity emissions for years 2020

25 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-1.
26 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-8.
27 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-8.
28 California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017. The emission factor of 595 pounds CO_2/MWh is from the California LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm, based on analysis with CA-GREET model. This document is provided in **Appendix C**.
29 California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017.

through 2023. Future year CO_2 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 CH_4 and N_2O were obtained from CalEEMod.[30]

The estimated annual emissions from electrical demand from the project's land uses during the opening year are provided in **Table 10**, *Project Electrical Demand Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 10
PROJECT ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
2021-2023						
Apartment [e]	202.5	758.4	595	0.029	0.0062	205.5
Hotel	58.5	594.7	595	0.029	0.0062	161.2
Retail	3.5	45.3	595	0.029	0.0062	12.3
Restaurant	9.1	394.2	595	0.029	0.0062	106.8
Fitness Center	2.5	27.6	595	0.029	0.0062	7.5
Pool/Deck/Spa	4.8	14.7	595	0.029	0.0062	4.0
Other Open Space/Amenities	18.5	46.3	595	0.029	0.0062	12.6
Enclose Parking with Elevator	89.2	555.3	595	0.029	0.0062	150.5
Unenclosed Parking with Elevator	100.5	270.3	595	0.029	0.0062	73.3
Subtotal						**734**
2024-2026						
Apartment [e]	202.5	758.4	533	0.029	0.0062	184.2
Hotel	58.5	594.7	533	0.029	0.0062	144.5
Retail	3.5	45.3	533	0.029	0.0062	11.0
Restaurant	9.1	394.2	533	0.029	0.0062	95.8
Fitness Center	2.5	27.6	533	0.029	0.0062	6.7
Pool/Deck/Spa	4.8	14.7	533	0.029	0.0062	3.6
Other Open Space/Amenities	18.5	46.3	533	0.029	0.0062	11.3
Enclose Parking with Elevator	89.2	555.3	533	0.029	0.0062	134.9
Unenclosed Parking with Elevator	100.5	270.3	533	0.029	0.0062	65.7
Subtotal						**658**

30 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
2027-2029						
Apartment [e]	202.5	758.4	488	0.029	0.0062	168.7
Hotel	58.5	594.7	488	0.029	0.0062	132.3
Retail	3.5	45.3	488	0.029	0.0062	10.1
Restaurant	9.1	394.2	488	0.029	0.0062	87.7
Fitness Center	2.5	27.6	488	0.029	0.0062	6.1
Pool/Deck/Spa	4.8	14.7	488	0.029	0.0062	3.3
Other Open Space/Amenities	18.5	46.3	488	0.029	0.0062	10.3
Enclose Parking with Elevator	89.2	555.3	488	0.029	0.0062	123.6
Unenclosed Parking with Elevator	100.5	270.3	488	0.029	0.0062	60.1
Subtotal						**602**
2030-2050						
Apartment [e]	202.5	758.4	444	0.029	0.0062	153.6
Hotel	58.5	594.7	444	0.029	0.0062	120.4
Retail	3.5	45.3	444	0.029	0.0062	9.2
Restaurant	9.1	394.2	444	0.029	0.0062	79.8
Fitness Center	2.5	27.6	444	0.029	0.0062	5.6
Pool/Deck/Spa	4.8	14.7	444	0.029	0.0062	3.0
Other Open Space/Amenities	18.5	46.3	444	0.029	0.0062	9.4
Enclose Parking with Elevator	89.2	555.3	444	0.029	0.0062	112.5
Unenclosed Parking with Elevator	100.5	270.3	444	0.029	0.0062	54.7
Subtotal						**548**

NOTES:

[a] California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, http://www.caleemod.com/. Accessed January 2017. The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf Accessed January 2017. Demand factor accounts for a 5 percent reduction in Title 24 energy demand per PDF-GHG-1.

[b] California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

[e] For emissions modeling purposes, the electricity and associated GHG reductions from the 30 kilowatt photovoltaic panels (approximately 47,478 kilowatt-hours per year) were applied to the Apartment land use.

SOURCE: ESA 2017.

Operational Energy – Natural Gas

Natural gas-related emissions of GHGs associated with operation of the project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the natural gas demand factors for the land uses, the GHG emission factors for the natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions are calculated using the general formula shown previously as **Equation 2**. For residential land uses, emission factors are specified in units of DU. For nonresidential land uses, emission factors are specified in units of 1,000 square feet.

Natural gas demand is based on data from the CEUS, which lists energy demand by building type.[31] However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2013Title 24 Building Standards Code. The 2013 Title 24 Building Standards Code electricity demand factors are obtained from CalEEMod, which already has the correction factors applied. Since the project would also be required to meet the Title 24 standards in effect at the time of building permit application, this analysis incorporates an additional correction factor to account for the amended 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017. The additional Title 24 regulated energy correction factor applies a 5 percent increased energy efficiency for nonresidential land uses and a 28 percent increased efficiency for residential land usess compared to the 2013 Title 24 Building Standards Code.[32] The project would be designed to incorporate PDFs that would reduce its energy demand with the goal of achieving or exceeding the requirements of the CALGreen Code, the City of Los Angeles Green Building Code, and the USGBC LEED Silver rating. Thus, the project would reduce its natural gas demand as comparoed to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the "mitigation measures" section of the model. A summary of the energy-efficiency PDFs is provided above in PDF-GHG-1.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the project were obtained from CalEEMod, which provides statewide emission factors.33 The emissions of GHGs due to natural gas demand would be relatively steady for the years assessed.

The estimated annual emissions from natural gas combustion from the project are provided in **Table 11**, *Project Natural Gas Combustion Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

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31 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017.

32 The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, ,http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed January 2017.

33 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

TABLE 11
PROJECT NATURAL GAS COMBUSTION GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Natural Gas Demand Factor (MMBtu/unit/year) [a]	Emission Factor (pounds/MMBtu)			Annual GHG Emissions ($MTCO_2e$/year) [c]
			CO_2 [b]	CH_4 [b]	N_2O [b]	
2021-2050						
Apartment	202.5	1923.6	117.65	0.0023	0.0022	103.3
Hotel	58.5	1777.8	117.65	0.0023	0.0022	95.4
Retail	3.5	5.3	117.65	0.0023	0.0022	0.3
Restaurant	9.1	2052.2	117.65	0.0023	0.0022	110.2
Fitness Center	2.5	42.5	117.65	0.0023	0.0022	2.3
Pool/Deck/Spa	4.8	59.9	117.65	0.0023	0.0022	3.2
Other Open Space/Amenities	18.5	0	117.65	0.0023	0.0022	0
Enclose Parking with Elevator	89.2	0	117.65	0.0023	0.0022	0
Unenclosed Parking with Elevator	100.5	0	117.65	0.0023	0.0022	0
Subtotal						**315**

NOTES:

[a] California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, http://www.caleemod.com/. Accessed January 2017. The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf Accessed January 2017. Demand factor accounts for a 5 percent reduction in Title 24 energy demand per PDF-GHG-1.

[b] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Mobile

Mobile source emission calculations associated with the project are calculated using the VMT from the traffic analysis prepared for the project.[34] The estimated VMT in the traffic analysis is based on average trip lengths for each land use were determined using CalEEMod. The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work (H-W), home-shop (H-S), and home-other (H-O). Commercial trips include commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type.

[34] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017.

The analysis is also based on the EMFAC2014 model. Emissions of GHGs associated with mobile sources from operation of the project are based on the average daily VMT and GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. The types of vehicles that would visit the site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the project was conducted using the vehicle fleet mix for the South Coast Air Basin as provided in EMFAC2014.

The project is considered an "infill" project, as it is replacing existing residential uses 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 provided by the nearby Metro Red Line, which provides convenient access to locations within North Hollywood, Universal City, Hollywood and Downtown Los Angeles and direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood). New housing and job growth, as a result of the completed project, is focused in a high-quality transit area (HQTA), which the Southern California Association of Governments (SCAG) defines as an area within a half mile of a well-serviced transit stop. These land use characteristics are analyzed below to demonstrate that the project would result in reduced vehicle trips, VMT, and associated transportation-related GHG emissions, as well as air pollutant emissions, compared to the statewide and South Coast Air Basin average.

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance for mitigating or reducing emissions from land use development projects. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for recommended reduction measures.[35] The CAPCOA guidance document was utilized in this analysis for quantifying reductions due to land use characteristics and Project Design Features in CalEEMod. 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 compared to the statewide and South Coast Air Basin average. They would, therefore, result in a corresponding reduction in VMT and associated GHG and air pollutant emissions.

- **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 measure LUT-1.[36] 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/compact infill location and is mixed-use; therefore, this measure applies to the

35 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010).
36 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155-158.

project. The project would increase the project site density to approximately 181 dwelling units per acre.

- **Location Efficiency:** Location efficiency describes the location of the 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. This measure corresponds to CAPCOA guidance measure LUT-2.[37] 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the geographic location of the project within the region. The project site represents an urban/compact infill location within the Hollywood community of the City 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 South Coast Air Basin average and would result in corresponding reductions in transportation-related emissions.

- **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 could be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This measure corresponds to CAPCOA guidance measure LUT-3.[38] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the percentage of each land use type in the project. The project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The project would include on-site 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 and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.

- **Increased Destination Accessibility:** This characteristic corresponds to CAPCOA guidance measure LUT-4.[39] 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/compact infill location and is

[37] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 159-161.
[38] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162-166.
[39] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 167-170.

mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure 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, studio/production, office, entertainment, movie theater, and residential uses. The project site is also located near other job centers in the region, which include Downtown Los Angeles (easily accessible via the Metro Red Line station located within a quarter mile of the site), Beverly Hills, Century City, Westwood, and the Hollywood area itself. The access to multiple destinations in close proximity to the project site would reduce vehicle trips and VMT compared to the statewide and South Coast Air Basin average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.

- **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 measure corresponds to CAPCOA guidance measure LUT -5.[40] According to CAPCOA, the reduction in VMT from this measure 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the distance to transit stations near the project. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood) and the Metro Red Line, which provides convenient access to North Hollywood, Universal City, Hollywood, and Downtown Los Angeles. The project would provide access to on-site uses from existing pedestrian pathways. The project would also provide parking for approximately 402 bicycles on-site to encourage utilization of alternative modes of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the statewide and South Coast Air Basin average, encourage 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 measure corresponds to CAPCOA guidance measure SDT-1.[41] According to CAPCOA, the reduction in VMT from this measure applies to urban, suburban, and rural settings for residential, retail, office, industrial, and mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include pedestrian access connectivity within the project and to/from off-site destinations. The project would improve the street-level pedestrian environment and connectivity to the surrounding Hollywood area, with pedestrian access to commercial/restaurant uses provided from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bike parking along Argyle Avenue, Yucca Street, and Vista Del Mar

[40] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171-175.

[41] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 186-189.

Avenue. 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.

The VMT reductions from the project's land use characteristics 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.[42] Data collected by the City in support of its Health Atlas for the City of Los Angeles demonstrates that the project would be located in an area that would substantially reduce mobile source VMT and GHG emissions relative to the Citywide and statewide averages. 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 organized by Community Plan Area. The project is located in the Hollywood Community Plan Area. A summary and analysis of the Health Atlas findings relative to the Hollywood Community Plan Area are provided below.

- **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."[43] The Health Atlas evaluates land use mix based on a Dissimilarity Index for each census tract and each Community Plan Area. The Dissimilarity Index quantifies the area of six different land uses: single family residential, multifamily residential, retail, entertainment, office, and institutional or community serving. Values were normalized on a scale of 0 to 1, with 1 representing an even distribution of the six uses within an area. The Hollywood Community Plan Area scored the highest out of the 35 Community Plan Areas indicating that the area has the highest number of different types of amenities available in the Community Plan Area. The data indicates that the Hollywood Community Plan Area has a high potential for walkability and offers a high number of destinations available for non-motorized trips. 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."[44] The high scores for walkability and number of destinations available for non-motorized trips within the Hollywood Community Plan Area supports the expectation that projects located in the area would achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide average. It also follows that projects located in the area would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the statewide average since the City of Los Angeles is more urbanized and has a higher mix and diversity of land uses than the state as a whole.

- **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

42 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013), http://planning.lacity.org/cwd/framwk/healthwellness/healthwellness.htm. Accessed January 2017.
43 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 86-87.
44 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162.

"allow for more frequent and comprehensive transit service."[45] In turn, "[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."[46] The Health Atlas evaluates employment density as the number of jobs per square mile. The Hollywood Community Plan Area has the 9th highest employment density of the 35 Community Plan Areas in the City with approximately 4,200 jobs per square mile. The Citywide average employee density is approximately 1,185 jobs per square mile.[47] The data indicates that the Hollywood 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. 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."[48] 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."[49] The high employment density of the Hollywood 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.

- **Walkability:** The Health Atlas 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 Hollywood Community Plan Area has the 9th highest Walkability Index of the 35 Community Plan Areas in the City.[50] 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, reduced VMT and associated GHG emissions. The high Walkability Index of the Hollywood 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.

- **Workers Commuting by Walking, Biking, and Public Transportation:** The Health Atlas indicates that the Hollywood Community Plan Area has a high percentage of workers that commute to work by walking, biking, and public transportation. The Hollywood Community Plan Area has the 9th highest percentage of workers that commute to work by walking, biking, and public transportation at about 22 percent for the area as a whole based on 2010 data.[51] The statewide percentage of workers that commute to work by walking, biking, and public transportation is approximately 9

45 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 90.
46 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 90.
47 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 102.
48 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155.
49 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155.
50 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 86.
51 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 112.

percent based on census data for the 2010 to 2014 period.[52] As discussed previously, the Hollywood Community Plan Area is a high walkable area and the area is also well served by frequent and comprehensive transit including the Metro Red Line, which provides convenient access to Downtown Los Angeles, and multiple bus lines. Thus, the data indicates that the Hollywood Community Plan Area substantially exceeds the statewide average for the percentage of workers that commute to work by walking, biking, and public transportation. The Health Atlas findings are further substantiated by the CAPCOA guidance measures LUT-1, LUT-3, and LUT-9, as discussed previously, and also by LUT-5 (Increase Transit Accessibility), which indicates that "high density near transit will facilitate the use of transit by people."[53] The high level of workers that commute to work by walking, biking, and public transportation in the Hollywood Community Plan Area supports the expectation that projects located in the area would be accessible to 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 average.

The above data from the City's Health Atlas supports the VMT reduction findings in this analysis. The project's specific location in close proximity to high-quality transit, including the Metro Red Line 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 finding in this analysis that the project would achieve a reduction in VMT greater than the Hollywood Community Plan Area average and better than the City and statewide average.

Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing project site. The national policy for fuel efficiency and emissions standards for the United States auto industry requires that new passenger cars and light-duty trucks achieve an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO_2 per mile by model year 2016 (Phase I standards), based on USEPA calculation methods. In August 2012, more stringent phased-in standards were adopted for new model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, new vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO_2 per mile (Phase II standards). By 2025, new vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile (Phase II standards). All vehicle types would visit the project site. Therefore, this assessment uses the fleet average calendar year emissions factors from EMFAC2014 to estimate mobile source GHG emissions.

The estimated annual emissions from mobile sources from the project are provided in **Table 12**, *Project Mobile Source Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

[52] U.S. 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 January 2017.

[53] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171.

TABLE 12
PROJECT MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Fleet Mix Year (All Vehicle Classes)	Extimated Annual VMT[a]	CO_2 Emission Factor (grams/mile)[b]	Annual GHG Emissions ($MTCO_2e$/year)
2021-2050			
2021	8,950,895	417.9	3,741
2022	8,950,895	406.2	3,636
2023	8,950,895	392.7	3,515
2024	8,950,895	382.7	3,426
2025	8,950,895	371.0	3,321
2026	8,950,895	361.2	3,233
2027	8,950,895	352.5	3,155
2028	8,950,895	344.9	3,087
2029	8,950,895	338.2	3,027
2030	8,950,895	332.4	2,976
2031	8,950,895	327.7	2,933
2032	8,950,895	323.3	2,893
2033	8,950,895	319.4	2,859
2034	8,950,895	316.2	2,830
2035	8,950,895	313.6	2,807
2036	8,950,895	311.6	2,789
2037	8,950,895	310.0	2,775
2038	8,950,895	308.8	2,764
2039	8,950,895	307.9	2,756
2040	8,950,895	307.2	2,750
2041	8,950,895	306.8	2,746
2042	8,950,895	306.5	2,744
2043	8,950,895	306.5	2,743
2044	8,950,895	306.5	2,744
2045	8,950,895	306.6	2,745
2046	8,950,895	306.9	2,747
2047	8,950,895	307.2	2,750
2048	8,950,895	307.6	2,753
2049	8,950,895	308.0	2,757
2050	8,950,895	308.6	2,763

NOTES:

[a] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017. Based on the estimated daily VMT multiplied by 365 days per year.

[b] EMFAC2014 Emission Factors.

SOURCE: ESA 2017.

Operational Waste

The project would generate MSW from day-to-day operational activities, which generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal under the project are calculated using CalEEMod. The emissions are based on the size of the commercial, retail, restaurant, and residential land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ are generally calculated in CalEEMod using the general formula shown previously as **Equation 3**.

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. Annual waste disposal rates used in CalEEMod are based on waste generation data for applicable residential and nonresidential land uses from CalRecycle. The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of 76 percent, according to the most recent data available.[54] The GHG emission factors, particularly for CH_4, 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), which are statewide averages, are used in this assessment.

The estimated annual emissions from solid waste disposal from the project are provided in **Table 13**, *Project Solid Waste Disposal Greenhouse Gas Emissions*. The emissions of GHGs due to waste generation would be relatively steady for the years assessed. Detailed emissions calculations are provided in **Appendix B**.

TABLE 13
PROJECT SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use [a]	Waste Diversion [b]	Waste Disposal Rate After Diversion (tons/year)	Landfill gas (no capture)	Landfill Gas (capture with flaring)	Annual GHG Emissions ($MTCO_2e$/year) [c]
2021-2050					
Apartment	76%	112.5	6%	94%	56.6
Hotel	76%	27.3	6%	94%	13.7
Retail/Restaurant	76%	2.7	6%	94%	1.4
Subtotal					**72**

[54] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

Land Use [a]	Waste Diversion [b]	Waste Disposal Rate After Diversion (tons/year)	Landfill gas (no capture)	Landfill Gas (capture with flaring)	Annual GHG Emissions ($MTCO_2e$/year) [c]

NOTES:

[a] Waste generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 2017. Waste generation is associated with the project's residential, hotel, and retail/restaurant uses.

[b] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

[c] Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the project would require energy to supply, distribute and treat. Emissions of GHGs would result from the combustion of fossil fuels to produce electricity as well as the wastewater treatment process itself, which results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O.

The emissions of GHGs associated with water demand and wastewater generation under the project are calculated using CalEEMod. The emissions are based on the size of the commercial, retail, restaurant, and residential land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod using the general formula shown previously as **Equation 4**.

CalEEMod calculates water demand based on annual rates in the Pacific Institute *Waste Not Want Not* report.[55] CalEEMod provides options to account for the use of water saving features such as the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets). The project would incorporate PDFs to reduce indoor and outdoor water usage, as summarized previous in PDF-GHG-1. Implementation of these PDFs would reduce indoor water usage by approximately 35 percent compared to typical usage values for developments meeting the minimum requirements. These water reduction factors have been accounted for in CalEEMod.

The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*, is used to calculate the energy usage related to water supply, treatment, and distribution and

[55] Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. Waste Not, Want Not: The Potential for Urban Water Conservation in California. Published by the Pacific Institute for Studies in Development, Environment, and Security. Full report available online at: http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf. Appendices available online at: http://www.pacinst.org/reports/urban_usage/appendices.htm.

wastewater treatment.[56] The same electricity GHG emissions factors discussed under the **Operational Energy – Electricity** subheading are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the *California Emissions Estimator Model User's Guide, Appendix A*.[57] As stated in the *User's Guide*, the GHGs emitted from each type of wastewater treatment are based on the CARB's *Local Government Operations Protocol* (LGOP),[58] which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.[59] The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

The estimated annual emissions from water and wastewater from the project are provided in **Table 14**, *Project Water and Wastewater Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 14
PROJECT WATER AND WASTEWATER GREENHOUSE GAS EMISSIONS

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
2021-2023							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	44.5
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	30.0
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	24.5
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.1
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	4.0
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.9

56 California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).
57 California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, (2016).
58 California Air Resources Board, Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008).
59 United States Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008).

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	2.1
Subtotal							**108**
2024-2026							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	41.1
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	27.7
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	22.6
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.0
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.7
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.7
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.9
Subtotal							**100**
2027-2029							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	38.6
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	26
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	21.2
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.0
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.5
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.5
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.7
Subtotal							**94**
2030-2050							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	36.1

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	24.3
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	19.8
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	0.9
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.3
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.4
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.6
Subtotal							**88**

NOTES:

[a] California Air Resources Board, CalEEModOutput.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Area and Stationary

Area sources of GHG emissions resulting from operation of the project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers. Residential hearths would not be installed in the project's residential uses.

The emissions of GHGs associated with operational area sources under the project are calculated using CalEEMod. The emissions for landscaping equipment are based on the size of the commercial, retail, restaurant, and residential land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of $MTCO_2e$ are generally calculated in CalEEMod using the general formula shown previously as **Equation 5**. CalEEMod 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).[60] CalEEMod estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

Stationary sources would include on-site emergency generator capacity rated at approximately 250 kilowatts (335 horsepower), which would provide emergency power primarily for lighting and other emergency building systems. Emissions of GHGs would be generated during maintenance and testing operations and emissions were estimated separately outside of the CalEEMod software. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines). Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

The estimated annual emissions from area and stationary sources under the project are provided in **Table 15**, *Project Area and Stationary Source Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 15
PROJECT AREA AND STATIONARY SOURCE GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions [a]
Landscaping Equipment	54
Emergency Generator	7
Total GHG Emissions	61

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in **Appendix B**.

SOURCE: ESA 2017.

Summary of Project GHG Emissions

A summary of the GHG emissions under the project is provided in **Table 16**, *Summary of Annual GHG Emissions*.

TABLE 16
SUMMARY OF ANNUAL GHG EMISSIONS

Year	Annual GHG Emissions ($MTCO_2e$/year)							
	Construc-tion	Electricity	Natural Gas	Mobile	Waste	Water and Waste Water	Area and Stationary	Total [a]
Const yr 1	1,466	–	–	–	–	–	–	1,466
Const Yr 2	779	–	–	–	–	–	–	779
2021	–	734	315	3,741	72	108	61	5,031
2022	–	734	315	3,636	72	108	61	4,926
2023	–	734	315	3,515	72	108	61	4,805
2024	–	658	315	3,426	72	100	61	4,632
2025	–	658	315	3,321	72	100	61	4,527
2026	–	658	315	3,233	72	100	61	4,439
2027	–	602	315	3,155	72	94	61	4,299
2028	–	602	315	3,087	72	94	61	4,231
2029	–	602	315	3,027	72	94	61	4,171
2030	–	548	315	2,976	72	88	61	4,060
2031	–	548	315	2,933	72	88	61	4,017
2032	–	548	315	2,893	72	88	61	3,977
2033	–	548	315	2,859	72	88	61	3,943
2034	–	548	315	2,830	72	88	61	3,914
2035	–	548	315	2,807	72	88	61	3,891
2036	–	548	315	2,789	72	88	61	3,873
2037	–	548	315	2,775	72	88	61	3,859
2038	–	548	315	2,764	72	88	61	3,848
2039	–	548	315	2,756	72	88	61	3,840
2040	–	548	315	2,750	72	88	61	3,834
2041	–	548	315	2,746	72	88	61	3,830
2042	–	548	315	2,744	72	88	61	3,828
2043	–	548	315	2,743	72	88	61	3,827
2044	–	548	315	2,744	72	88	61	3,828
2045	–	548	315	2,745	72	88	61	3,829
2046	–	548	315	2,747	72	88	61	3,831
2047	–	548	315	2,750	72	88	61	3,834
2048	–	548	315	2,753	72	88	61	3,837
2049	–	548	315	2,757	72	88	61	3,841
2050	–	548	315	2,763	72	88	61	3,847

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations.

SOURCE: ESA 2017.

Project GHG Emissions Offsets

Annual emissions of GHGs from the project will incorporate GHG emission offsets as necessary to achieve a net zero increase in site GHG emissions, relative to the baseline annual GHG emissions, for the estimated project lifetime. The project Applicant proposes to meet the requirement set forth in California Public Resources Code Section 21183 (c), which requires that the project demonstrate that it will not result in net additional emissions of GHG, through the acquisition of voluntary carbon credits sufficient to offset all projected additional emissions. the Applicant or its successor shall enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (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 achieve a net zero increase in site GHG emissions. The necessary offsets are summarized below in **Section 4.0**, *Comparison of Project to Baseline Condition*. Offsets are estimated for a project useful lifetime of 30 years, which is recommended as a presumed project lifetime per SCAQMD guidance.[61]

[61] 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/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2. Accessed January 2017.

4.0
Comparison of Project to Baseline Condition

Table 17, *Evaluation of Net GHG Emissions for the Project*, provides a summary of the determination of net additional GHG emissions comparing the existing site GHG emissions and the project GHG emissions including construction-related emissions. Based on these GHG emissions estimates, the project would not result in net additional contemporaneous GHG emissions compared to the baseline annual operational emissions at any time.

The project shall commit to obtaining GHG offsets to achieve no net increase in GHG emissions. As such, the project would not result in net contemporaneous GHG emissions compared to the Baseline Condition, taking into account GHG offsets. Therefore, this analysis demonstrates that the project meets the GHG emissions requirements of the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.) and would result in no net GHG emissions.

TABLE 17
EVALUATION OF NET GHG EMISSIONS FOR THE PROJECT

Year	Baseline Annual Operations	Project Total	Estimated Offsets [a]	Net Change from Baseline
2021-2050				
Const yr 1	626	1,466	840	0
Const Yr 2	626	779	153	0
2021	626	5,031	4,405	0
2022	626	4,926	4,300	0
2023	626	4,805	4,179	0
2024	626	4,632	4,006	0
2025	626	4,527	3,901	0
2026	626	4,439	3,813	0
2027	626	4,299	3,673	0
2028	626	4,231	3,605	0
2029	626	4,171	3,545	0
2030	626	4,060	3,434	0
2031	626	4,017	3,391	0
2032	626	3,977	3,351	0
2033	626	3,943	3,317	0
2034	626	3,914	3,288	0
2035	626	3,891	3,265	0
2036	626	3,873	3,247	0
2037	626	3,859	3,233	0
2038	626	3,848	3,222	0
2039	626	3,840	3,214	0
2040	626	3,834	3,208	0
2041	626	3,830	3,204	0
2042	626	3,828	3,202	0
2043	626	3,827	3,201	0
2044	626	3,828	3,202	0
2045	626	3,829	3,203	0
2046	626	3,831	3,205	0
2047	626	3,834	3,208	0
2048	626	3,837	3,211	0
2049	626	3,841	3,215	0
2050	626	3,847	3,221	0

NOTES:

[a] The quantity of GHG emissions offsets may be re-evaluated periodically to account for future reductions from the promulgation of state regulations, such as post-2025 model year vehicle emissions standards and post-2030 Renewables Portfolio Standard and other regulations that would reduce project-related operational GHG emissions but cannot be quantified at this time.

SOURCE: ESA 2017.

Appendix A
Baseline Operational Emissions

ESA

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Existing Uses Electricity Demand Rates

Land Use	Climate Zone	T24 Standard	T24 Electricity (kWh/DU/year)	NT24 Electricity (kWh/DU/year)	Lighting Electricity (kWh/DU/year)	Total Electricity (kWh/DU/year)	Per Unit Annual Electricity Usage (MWh/DU/year)
Single-Family	11	2005	467.55	5,089.81	1,608.84	7,166.20	7.17
Single-Family	**11**	**2001**	**582.98**	**5,089.81**	**1,608.84**	**7,281.63**	**7.28**
Apartment Low-Rise	11	2005	170.99	2,630.88	810.36	3,612.23	3.61
Apartment Low-Rise	**11**	**2001**	**225.88**	**2,630.88**	**810.36**	**3,667.12**	**3.67**

Source: California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2016.3.1), Appendix E Section 5, September 2016, http://caleemod.com/. Accessed January 2017.

California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2013.2), Appendix E Section 5, July 2013, http://caleemod.com/. Accessed January 2017.

Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Existing Uses Electricity Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Existing Uses Natural Gas Demand Rates

Land Use	Climate Zone	T24 Standard	T24 Natural Gas (kBtu/DU or sf/year)	NT24 Natural Gas (kBtu/DU or sf/year)	Total Natural Gas (kWh/DU/year)	Per Unit Annual Natural Gas Usage (MWh/DU/year)
Single-Family	11	2005	28,628.82	5,819.00	34,447.82	34.45
Single-Family	**11**	**2001**	**30,684.69**	**5,819.00**	**36,503.69**	**36.50**
Apartment Low-Rise	11	2005	11,673.00	2,578.64	14,251.64	14.25
Apartment Low-Rise	**11**	**2001**	**13,846.98**	**2,578.64**	**16,425.62**	**16.43**

Source: California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2016.3.1), Appendix E Section 5, September 2016, http://caleemod.com/. Accessed January 2017.
California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2013.2), Appendix E Section 5, July 2013, http://caleemod.com/. Accessed January 2017.
Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Existing Uses Natural Gas Greenhouse Gas Emissions

Refer to CalEEMod output files.

Existing Uses Solid Waste Disposal Rates

Land Use	Project Units	Solid Waste Factor [a] (lbs/unit/day)	Solid Waste Before Diversion (tons/year)	Diversion Rate [b] (%)	Solid Waste After Diversion
Residential	44 DU	12.23	98.2	76%	23.6
Total Project					**23.6**

Notes:

a. Generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed October 2015.

b. City of Los Angeles, Zero Waste Progress Report, (March 2013) 3. According to the Report, the City achieved a landfill diversion rate of approximately 76% by year 2012.

Source: ESA 2017.

Existing Uses Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

Existing Uses Water Demand Rates

Land Use	Units (DU, Rooms, or 1000 sqft)	Wastewater Generation [a] (gal/unit/day)	Water Demand [b] (gal/day)	Indoor Water Demand Rate (gal/year)	Outdoor Water Demand Rate (gal/year)	Indoor Water Reduction (%)	Reduced Indoor Water Demand Rate (gal/year)	Outdoor Water Reduction (%)	Reduced Outdoor Water Demand Rate (gal/year)
Multi-Family Residential	43		6,402	1,947,275	389,455	-	1,947,275	-	389,455
Studio	*1*	*75*	*90*						
One Bedroom	*26*	*110*	*3,432*						
Two Bedroom	*16*	*150*	*2,880*						
Three Bedroom	*-*	*190*	*-*						
Single-Family Residential	1	185	222	67,525	13,505	-	67,525	-	13,505
Parking/Asphalt/Hardscape	28	20	672	-	245,280	-	-	-	245,280
Total Water Demand				**2,014,800**	**648,240**		**2,014,800**		**648,240**

Notes:

a. Wastewater generation factors obtained from City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR), dated January 2017 and based on Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories, dated April 6, 2012.

b. Water demand rates are calculated based on the wastewater generation rates and increasing the factor by 20% to account for absorption, evaporation, consumption, irrigation, and other losses.

Source: ESA 2017.

Existing Uses Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 West Yucca Street Mixed Use Project - Existing Site Operations

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	28.00	1000sqft	0.64	28,000.00	0
Apartments Low Rise	43.00	Dwelling Unit	0.80	18,952.00	87
Single Family Housing	1.00	Dwelling Unit	0.16	1,367.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2015
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1132	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

Land Use - Multi-Family (43 DU); Single-Family (1 DU). Pop.=2.03/DU per census data for Hollywood Community Plan Area.

Vehicle Trips -

Woodstoves - Assumes no woodstoves. 1 Fireplace at duplex multi-family unit. No fireplaces at single-family or apartment units.

Energy Use - Title 24 (2001): California Air Resources Board, CalEEMod User's Guide, Appendix E, Section 5. Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Water And Wastewater - Refer to "Existing Uses Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Existing Uses Solid Waste Disposal Rates" worksheet provided in this Appendix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3,418.36	2,630.88
tblEnergyUse	NT24E	6,680.41	5,089.81
tblEnergyUse	NT24NG	4,831.00	2,578.64
tblEnergyUse	NT24NG	4,831.00	5,819.00
tblEnergyUse	T24E	159.21	225.88
tblEnergyUse	T24E	238.85	582.98
tblEnergyUse	T24NG	13,398.37	13,846.98
tblEnergyUse	T24NG	28,690.19	30,684.69
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	36.55	0.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	4.30	42.00
tblFireplaces	NumberNoFireplace	0.10	1.00
tblFireplaces	NumberWood	2.15	1.00
tblFireplaces	NumberWood	0.05	0.00
tblLandUse	BuildingSpaceSquareFeet	43,000.00	18,952.00
tblLandUse	BuildingSpaceSquareFeet	1,800.00	1,367.00
tblLandUse	LandUseSquareFeet	43,000.00	18,952.00
tblLandUse	LandUseSquareFeet	1,800.00	1,367.00
tblLandUse	LotAcreage	2.69	0.80
tblLandUse	LotAcreage	0.32	0.16
tblLandUse	Population	123.00	87.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1132
tblProjectCharacteristics	OperationalYear	2018	2015
tblSolidWaste	SolidWasteGenerationRate	19.78	23.03
tblSolidWaste	SolidWasteGenerationRate	1.23	0.54
tblWater	IndoorWaterUseRate	2,801,623.10	1,947,275.00

tblWater	IndoorWaterUseRate	65,154.03	67,525.00
tblWater	OutdoorWaterUseRate	1,766,240.65	389,455.00
tblWater	OutdoorWaterUseRate	0.00	245,280.00
tblWater	OutdoorWaterUseRate	41,075.36	13,505.00
tblWoodstoves	NumberCatalytic	2.15	0.00
tblWoodstoves	NumberCatalytic	0.05	0.00
tblWoodstoves	NumberNoncatalytic	2.15	0.00
tblWoodstoves	NumberNoncatalytic	0.05	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Energy	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	136.9962	136.9962	3.2500e-003	1.2400e-003	137.4479
Waste						0.0000	0.0000		0.0000	0.0000	4.7845	0.0000	4.7845	0.2828	0.0000	11.8534
Water						0.0000	0.0000		0.0000	0.0000	0.6392	17.1686	17.8078	0.0661	1.6400e-003	19.9492

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Energy	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	136.9962	136.9962	3.2500e-003	1.2400e-003	137.4479
Waste						0.0000	0.0000		0.0000	0.0000	4.7845	0.0000	4.7845	0.2828	0.0000	11.8534
Water						0.0000	0.0000		0.0000	0.0000	0.6392	17.1686	17.8078	0.0661	1.6400e-003	19.9492
Total	**0.3282**	**0.8376**	**2.8811**	**5.6600e-003**	**0.3807**	**0.0233**	**0.4040**	**0.1021**	**0.0228**	**0.1249**	**6.2096**	**641.8393**	**648.0489**	**0.3858**	**2.9500e-003**	**658.5738**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	97.3573	97.3573	2.4900e-003	5.2000e-004	97.5734
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	97.3573	97.3573	2.4900e-003	5.2000e-004	97.5734
NaturalGas Mitigated	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6389	39.6389	7.6000e-004	7.3000e-004	39.8745
NaturalGas Unmitigated	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6389	39.6389	7.6000e-004	7.3000e-004	39.8745

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	706302	3.8100e-003	0.0326	0.0139	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.6910	37.6910	7.2000e-004	6.9000e-004	37.9149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36503.7	2.0000e-004	1.6800e-003	7.2000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9480	1.9480	4.0000e-005	4.0000e-005	1.9596
Total		**4.0100e-003**	**0.0342**	**0.0146**	**2.2000e-004**		**2.7700e-003**	**2.7700e-003**		**2.7700e-003**	**2.7700e-003**	**0.0000**	**39.6389**	**39.6389**	**7.6000e-004**	**7.3000e-004**	**39.8745**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	706302	3.8100e-003	0.0326	0.0139	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.6910	37.6910	7.2000e-004	6.9000e-004	37.9149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36503.7	2.0000e-004	1.6800e-003	7.2000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9480	1.9480	4.0000e-005	4.0000e-005	1.9596
Total		**4.0100e-003**	**0.0342**	**0.0146**	**2.2000e-004**		**2.7700e-003**	**2.7700e-003**		**2.7700e-003**	**2.7700e-003**	**0.0000**	**39.6389**	**39.6389**	**7.6000e-004**	**7.3000e-004**	**39.8745**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	157686	80.9666	2.0700e-003	4.3000e-004	81.1463
Parking Lot	24640	12.6518	3.2000e-004	7.0000e-005	12.6799
Single Family Housing	7281.63	3.7389	1.0000e-004	2.0000e-005	3.7472
Total		**97.3573**	**2.4900e-003**	**5.2000e-004**	**97.5734**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	157686	80.9666	2.0700e-003	4.3000e-004	81.1463
Parking Lot	24640	12.6518	3.2000e-004	7.0000e-005	12.6799
Single Family Housing	7281.63	3.7389	1.0000e-004	2.0000e-005	3.7472
Total		**97.3573**	**2.4900e-003**	**5.2000e-004**	**97.5734**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Unmitigated	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0584	6.6000e-004	0.0644	1.0000e-004		8.8200e-003	8.8200e-003		8.8200e-003	8.8200e-003	0.7859	0.0000	0.7859	0.0000	7.0000e-005	0.8066
Landscaping	0.0148	5.4500e-003	0.4626	2.0000e-005		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	0.7419	0.7419	7.7000e-004	0.0000	0.7612
Total	**0.1552**	**6.1100e-003**	**0.5270**	**1.2000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.7859**	**0.7419**	**1.5278**	**7.7000e-004**	**7.0000e-005**	**1.5678**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0584	6.6000e-004	0.0644	1.0000e-004		8.8200e-003	8.8200e-003		8.8200e-003	8.8200e-003	0.7859	0.0000	0.7859	0.0000	7.0000e-005	0.8066
Landscaping	0.0148	5.4500e-003	0.4626	2.0000e-005		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	0.7419	0.7419	7.7000e-004	0.0000	0.7612
Total	**0.1552**	**6.1100e-003**	**0.5270**	**1.2000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.7859**	**0.7419**	**1.5278**	**7.7000e-004**	**7.0000e-005**	**1.5678**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.8078	0.0661	1.6400e-003	19.9492
Unmitigated	17.8078	0.0661	1.6400e-003	19.9492

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.94728 / 0.389455	15.8587	0.0638	1.5800e-003	17.9253
Parking Lot	0 / 0.24528	1.3992	4.0000e-005	1.0000e-005	1.4023
Single Family Housing	0.067525 / 0.013505	0.5499	2.2100e-003	5.0000e-005	0.6216
Total		**17.8078**	**0.0661**	**1.6400e-003**	**19.9492**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.94728 / 0.389455	15.8587	0.0638	1.5800e-003	17.9253
Parking Lot	0 / 0.24528	1.3992	4.0000e-005	1.0000e-005	1.4023
Single Family Housing	0.067525 / 0.013505	0.5499	2.2100e-003	5.0000e-005	0.6216
Total		**17.8078**	**0.0661**	**1.6400e-003**	**19.9492**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.7845	0.2828	0.0000	11.8534
Unmitigated	4.7845	0.2828	0.0000	11.8534

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23.03	4.6749	0.2763	0.0000	11.5818
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.54	0.1096	6.4800e-003	0.0000	0.2716
Total		**4.7845**	**0.2828**	**0.0000**	**11.8534**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23.03	4.6749	0.2763	0.0000	11.5818
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.54	0.1096	6.4800e-003	0.0000	0.2716
Total		**4.7845**	**0.2828**	**0.0000**	**11.8534**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

	GHG Emission Factors (metric tons/mile)			
Year	**CO2**	**CH4**	**N2O**	**CO2e**
	1	*25*	*298*	
2015	4.83E-04	3.12E-08	-	4.84E-04
2018	4.51E-04	2.39E-08	-	4.52E-04
2021	4.17E-04	1.90E-08	-	4.18E-04
2022	4.06E-04	1.78E-08	-	4.06E-04
2023	3.92E-04	1.66E-08	-	3.93E-04
2024	3.82E-04	1.58E-08	-	3.83E-04
2025	3.71E-04	1.50E-08	-	3.71E-04
2026	3.61E-04	1.42E-08	-	3.61E-04
2027	3.52E-04	1.36E-08	-	3.52E-04
2028	3.45E-04	1.31E-08	-	3.45E-04
2029	3.38E-04	1.26E-08	-	3.38E-04
2030	3.32E-04	1.22E-08	-	3.32E-04
2031	3.27E-04	1.18E-08	-	3.28E-04
2032	3.23E-04	1.15E-08	-	3.23E-04
2033	3.19E-04	1.12E-08	-	3.19E-04
2034	3.16E-04	1.10E-08	-	3.16E-04
2035	3.13E-04	1.08E-08	-	3.14E-04
2036	3.11E-04	1.06E-08	-	3.12E-04
2037	3.10E-04	1.04E-08	-	3.10E-04
2038	3.09E-04	1.03E-08	-	3.09E-04
2039	3.08E-04	1.02E-08	-	3.08E-04
2040	3.07E-04	1.01E-08	-	3.07E-04
2041	3.07E-04	1.00E-08	-	3.07E-04
2042	3.06E-04	9.94E-09	-	3.07E-04
2043	3.06E-04	9.89E-09	-	3.06E-04
2044	3.06E-04	9.82E-09	-	3.07E-04
2045	3.06E-04	9.76E-09	-	3.07E-04
2046	3.07E-04	9.65E-09	-	3.07E-04
2047	3.07E-04	9.61E-09	-	3.07E-04
2048	3.07E-04	9.59E-09	-	3.08E-04
2049	3.08E-04	9.56E-09	-	3.08E-04
2050	3.08E-04	9.53E-09	-	3.09E-04

Source: EMFAC2014, South Coast Air Basin (Los Angeles County), "Emissions" (or "Burden") mode.

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

			GHG Emission Factors (metric tons/year)			
Scenario	**Year**	**VMT/year**	**CO2**	**CH4**	**N2O**	**CO2e**
			1	*25*	*298*	
Existing Uses	2015	939,145	453.51	0.03	-	454

Source: ESA 2017

Appendix B

Project Construction and Operational Emissions

ESA

B-1 Project Construction Emissions

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Air Quality and Greenhouse Gas Assessment

Project Information

Land Use	CalEEMod Land Use Type	Units			
Residential	High-rise Apartment	210	DU	242,285	sf
Recreational	Hotel	136	rooms	80,335	sf
Retail	Strip Mall	3.5	KSF	3,450	sf
Recreational	Restaurant	9.1	KSF	9,050	sf
Parking	Unenclosed Parking with Elevator	232	spaces	100,483	sf
Parking	Enclosed Parking with Elevator	206	spaces	89,222	sf
Pool/Deck/Spa	Recreational Swimming Pool	4.8	KSF	4,840	sf
Fitness Center	Health Club	2.5	KSF	2,530	sf
Other Open Space/Amenities	City Park	18.5	KSF	18,535	sf
Total Building Area (excluding parking and open space)				335,120	sf
Total Lot Area (acres)/Developed Area (sf)		1.16	acres		

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

Note:

a. California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2014 with 2010 Census Benchmark, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php. Accessed September 2014.

Source: 6220 West Yucca Design Plans, prepared by Togawa Smith Martin 2016.

Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs

CalEEMod Construction Phase	Start Date	End Date	No. Work Days	Demo (CY)	Demo Truck Capacity (CY)	Demo Truck Total One-Way Trips	Demo Truck Daily One-Way Trips	Soil Export (CY)	Soil Import (CY)	Soil Haul Truck Capacity (CY)	Soil Haul Truck Total One-Way Trips	Soil Haul Truck Daily One-Way Trips	Vendor One-Way Trips/Max Day [a]	Worker One-Way Trips/Max Day [b]
Demolition	1/1/2018	1/21/2018	15	5,000	10	1,000	67						6	18
Site Preparation	1/22/2018	1/31/2018	8											18
Grading/Excavation	2/1/2018	5/31/2018	86					120,000	-	14	17,200	200	6	20
Building Construction 1	6/1/2018	6/30/2019	281										73	280
Building Construction 2	7/1/2019	10/31/2019	89										73	280
Paving	9/1/2019	12/31/2019	87											18
Architectural Coating	7/1/2019	10/31/2019	89											56

Notes:

a. Vendor trips are associated with the Building Construction phase and are based on CalEEMod assumptions.

b. Worker trips are based on CalEEMod assumptions.

Source: ESA 2017.

6220 West Yucca Street Mixed Use Project
Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Demolition

Demolition Schedule				**Notes**
Start Date	1/1/2018			
End Date	1/21/2018			
Work Days	15			

Demolition Quantities				
Land Use	**Amount**	***Units***		
6220-6224 Yucca	27.0	*KSF*		Estimate from Google Earth, two story multi-family
6210-6216 Yucca	16.0	*KSF*		Estimate from Google Earth, two story multi-family
1765-1779 Vista del Mar	5.3	*KSF*		Estimate from Google Earth, single story and two story single-family
Total	**48.3**	*KSF*		
Total (rounded up)	**50.0**		<-------	**ENTER VALUE INTO CALEEMOD**

Demolition Volume				
Total Area (KSF)	50			
Floor Height (ft)	10			Assumed
Building Volume (ft3)	500,000			
Building Volume (CY)	18,519			
Debris Volume (CY)	5,000	*(rounded, estimated)*		Rounded, 1 CY building volume = 0.25 CY waste volume
Truck Size (CY)	10			
Total One-way Truck Trips	**1,000**	*(rounded, estimated)*	<-------	**ENTER VALUE INTO CALEEMOD**
Daily One-way Truck Trips	67	*trips/day*		

6220 West Yucca Street Mixed Use Project
Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Excavation

Demolition Schedule

Start Date	2/1/2018
End Date	5/31/2018
Duration (days)	86

Estimated Soil Excavation

Land Use	Height		Area			Resulting Volume			Soil Export	
Loading Area	15	feet	1.0	KSF	=	18,150	ft3	=	672	CY
Building 1 Sub Parking	11	feet	108.0	KSF	=	1,437,480	ft3	=	53,240	CY
Building 2 Sub Parking	11	feet	7.0	KSF	=	93,170	ft3	=	3,451	CY
Foundation	20	feet	48.0	KSF (footprint)	=	1,161,600	ft3	=	43,022	CY
Total									**100,385**	**CY**
Total with 10% Contingency Added									**110,424**	**CY**

Total Soil Export (CY)	**120,000**	*(rounded, estimated)*	<-------	**ENTER VALUE INTO CALEEMOD**
Truck Size (CY)	**14**			
Total One-way Truck Trips	**17,200**		<-------	**ENTER VALUE INTO CALEEMOD**
Daily One-way Truck Trips	200	*trips/day*		

6220 W Yucca Street Project - Construction

South Coast Air Basin, Annual

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	601
Hotel	136.00	Room	0.21	80,335.00	0
Strip Mall	3.45	1000sqft	0.05	3,450.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	595	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Construction Phase - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Grading -

Demolition -

Trips and VMT - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet.

Construction Off-road Equipment Mitigation - Tier 3+DPF Equipment; Tier 4 Equipment (for equipment 90 HP and greater); Water Unpaved Roads and Exposed Areas 3 X Daily; Limit On-Site Speed to 15 MPH or less.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	FuelType	Diesel	CNG
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	89.00
tblConstructionPhase	NumDays	200.00	281.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	4.00	86.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	NumDays	2.00	8.00
tblConstructionPhase	NumDays	200.00	89.00
tblConstructionPhase	PhaseEndDate	12/10/2018	10/31/2019
tblConstructionPhase	PhaseEndDate	11/12/2018	6/30/2019
tblConstructionPhase	PhaseEndDate	1/26/2018	1/21/2018
tblConstructionPhase	PhaseEndDate	2/5/2018	5/31/2018
tblConstructionPhase	PhaseEndDate	11/26/2018	12/31/2019
tblConstructionPhase	PhaseEndDate	1/30/2018	1/31/2018
tblConstructionPhase	PhaseStartDate	11/27/2018	7/1/2019
tblConstructionPhase	PhaseStartDate	2/6/2018	6/1/2018

tblConstructionPhase	PhaseStartDate	1/31/2018	2/1/2018
tblConstructionPhase	PhaseStartDate	11/13/2018	9/1/2019
tblConstructionPhase	PhaseStartDate	1/27/2018	1/22/2018
tblGrading	MaterialExported	0.00	120,000.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	0.06	0.05
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	595
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripNumber	227.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,200.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	15.00	18.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.5595	7.3070	4.1161	0.0154	0.7661	0.2021	0.9682	0.2688	0.1881	0.4569	0.0000	1,455.0038	1,455.0038	0.1748	0.0000	1,459.3740
2019	1.6099	2.9084	3.3380	8.4300e-003	0.4209	0.1194	0.5403	0.1129	0.1120	0.2250	0.0000	770.3265	770.3265	0.0816	0.0000	772.3670
Maximum	**1.6099**	**7.3070**	**4.1161**	**0.0154**	**0.7661**	**0.2021**	**0.9682**	**0.2688**	**0.1881**	**0.4569**	**0.0000**	**1,455.0038**	**1,455.0038**	**0.1748**	**0.0000**	**1,459.3740**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.2811	4.3175	5.6139	0.0154	0.5662	0.0285	0.5947	0.1772	0.0277	0.2049	0.0000	1,462.3326	1,462.3326	0.1771	0.0000	1,466.7599
2019	1.4599	1.6796	4.6401	8.4300e-003	0.4209	0.0178	0.4387	0.1129	0.0173	0.1302	0.0000	776.4467	776.4467	0.0836	0.0000	778.5356
Maximum	**1.4599**	**4.3175**	**5.6139**	**0.0154**	**0.5662**	**0.0285**	**0.5947**	**0.1772**	**0.0277**	**0.2049**	**0.0000**	**1,462.3326**	**1,462.3326**	**0.1771**	**0.0000**	**1,466.7599**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.75**	**41.29**	**-37.56**	**0.00**	**16.84**	**85.61**	**31.49**	**23.99**	**85.03**	**50.86**	**0.00**	**-0.60**	**-0.60**	**-1.64**	**0.00**	**-0.61**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2018**	**3-31-2018**	3.0475	1.6724
2	**4-1-2018**	**6-30-2018**	2.7820	1.6908
3	**7-1-2018**	**9-30-2018**	0.9563	0.5659
4	**10-1-2018**	**12-31-2018**	0.9656	0.5752
5	**1-1-2019**	**3-31-2019**	0.8718	0.5312
6	**4-1-2019**	**6-30-2019**	0.8733	0.5290
7	**7-1-2019**	**9-30-2019**	1.6665	1.4326
		Highest	3.0475	1.6908

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/21/2018	5	15	
2	Site Preparation	Site Preparation	1/22/2018	1/31/2018	5	8	
3	Grading	Grading	2/1/2018	5/31/2018	5	86	
4	Building Construction 1	Building Construction	6/1/2018	6/30/2019	5	281	
5	Paving	Paving	9/1/2019	12/31/2019	5	87	
6	Architectural Coating	Architectural Coating	7/1/2019	10/31/2019	5	89	
7	Building Construction 2	Building Construction	7/1/2019	10/31/2019	5	89	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 86

Acres of Paving: 0.2

Residential Indoor: 490,627; Residential Outdoor: 163,542; Non-Residential Indoor: 143,048; Non-Residential Outdoor: 47,683; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction 1	Generator Sets	1	8.00	84	0.74
Building Construction 1	Cranes	0	6.00	231	0.29
Building Construction 1	Forklifts	3	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	2	6.00	130	0.42
Paving	Rollers	2	7.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction 1	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	7.00	247	0.40
Building Construction 1	Welders	0	8.00	46	0.45
Building Construction 2	Cranes	0	6.00	231	0.29
Building Construction 2	Forklifts	0	6.00	89	0.20
Building Construction 2	Generator Sets	1	8.00	84	0.74
Building Construction 2	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction 2	Welders	0	8.00	46	0.45
Demolition	Excavators	1	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction 1	Other Construction Equipment	1	8.00	172	0.42

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	56.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	6	280.00	73.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	18.00	6.00	1,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	17,200.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 2	2	280.00	73.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0257	0.2708	0.1428	2.4000e-004		0.0145	0.0145		0.0133	0.0133	0.0000	21.6245	21.6245	6.7300e-003	0.0000	21.7928
Total	**0.0257**	**0.2708**	**0.1428**	**2.4000e-004**	**0.0246**	**0.0145**	**0.0391**	**3.7300e-003**	**0.0133**	**0.0171**	**0.0000**	**21.6245**	**21.6245**	**6.7300e-003**	**0.0000**	**21.7928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.1625	0.0315	4.0000e-004	8.5900e-003	6.1000e-004	9.2100e-003	2.3600e-003	5.9000e-004	2.9500e-003	0.0000	38.7952	38.7952	2.8500e-003	0.0000	38.8666
Vendor	2.0000e-004	5.5800e-003	1.4600e-003	1.0000e-005	2.8000e-004	4.0000e-005	3.2000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.1182	1.1182	8.0000e-005	0.0000	1.1202
Worker	7.2000e-004	5.9000e-004	6.3100e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.4222	1.4222	5.0000e-005	0.0000	1.4234
Total	**5.5200e-003**	**0.1687**	**0.0393**	**4.3000e-004**	**0.0104**	**6.6000e-004**	**0.0110**	**2.8300e-003**	**6.4000e-004**	**3.4700e-003**	**0.0000**	**41.3356**	**41.3356**	**2.9800e-003**	**0.0000**	**41.4102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.6000e-003	0.0000	9.6000e-003	1.4500e-003	0.0000	1.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0126	0.1396	2.4000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	21.6245	21.6245	6.7300e-003	0.0000	21.7928
Total	**2.9000e-003**	**0.0126**	**0.1396**	**2.4000e-004**	**9.6000e-003**	**3.9000e-004**	**9.9900e-003**	**1.4500e-003**	**3.9000e-004**	**1.8400e-003**	**0.0000**	**21.6245**	**21.6245**	**6.7300e-003**	**0.0000**	**21.7928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.1625	0.0315	4.0000e-004	8.5900e-003	6.1000e-004	9.2100e-003	2.3600e-003	5.9000e-004	2.9500e-003	0.0000	38.7952	38.7952	2.8500e-003	0.0000	38.8666
Vendor	2.0000e-004	5.5800e-003	1.4600e-003	1.0000e-005	2.8000e-004	4.0000e-005	3.2000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.1182	1.1182	8.0000e-005	0.0000	1.1202
Worker	7.2000e-004	5.9000e-004	6.3100e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.4222	1.4222	5.0000e-005	0.0000	1.4234
Total	**5.5200e-003**	**0.1687**	**0.0393**	**4.3000e-004**	**0.0104**	**6.6000e-004**	**0.0110**	**2.8300e-003**	**6.4000e-004**	**3.4700e-003**	**0.0000**	**41.3356**	**41.3356**	**2.9800e-003**	**0.0000**	**41.4102**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0632	0.0000	0.0632	0.0348	0.0000	0.0348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0165	0.1740	0.0833	1.4000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	12.7335	12.7335	3.9600e-003	0.0000	12.8326
Total	**0.0165**	**0.1740**	**0.0833**	**1.4000e-004**	**0.0632**	**9.3900e-003**	**0.0726**	**0.0348**	**8.6400e-003**	**0.0434**	**0.0000**	**12.7335**	**12.7335**	**3.9600e-003**	**0.0000**	**12.8326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	3.1000e-004	3.3700e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7585	0.7585	3.0000e-005	0.0000	0.7592
Total	**3.8000e-004**	**3.1000e-004**	**3.3700e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7585**	**0.7585**	**3.0000e-005**	**0.0000**	**0.7592**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0247	0.0000	0.0247	0.0136	0.0000	0.0136	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	7.3900e-003	0.0777	1.4000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	12.7334	12.7334	3.9600e-003	0.0000	12.8326
Total	**1.7100e-003**	**7.3900e-003**	**0.0777**	**1.4000e-004**	**0.0247**	**2.3000e-004**	**0.0249**	**0.0136**	**2.3000e-004**	**0.0138**	**0.0000**	**12.7334**	**12.7334**	**3.9600e-003**	**0.0000**	**12.8326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	3.1000e-004	3.3700e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7585	0.7585	3.0000e-005	0.0000	0.7592
Total	**3.8000e-004**	**3.1000e-004**	**3.3700e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7585**	**0.7585**	**3.0000e-005**	**0.0000**	**0.7592**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2398	0.0000	0.2398	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1633	1.8888	1.1411	2.2800e-003		0.0835	0.0835		0.0769	0.0769	0.0000	207.9049	207.9049	0.0647	0.0000	209.5230
Total	**0.1633**	**1.8888**	**1.1411**	**2.2800e-003**	**0.2398**	**0.0835**	**0.3234**	**0.1117**	**0.0769**	**0.1885**	**0.0000**	**207.9049**	**207.9049**	**0.0647**	**0.0000**	**209.5230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0791	2.7955	0.5414	6.8000e-003	0.1478	0.0106	0.1584	0.0406	0.0101	0.0507	0.0000	667.2776	667.2776	0.0491	0.0000	668.5049
Vendor	1.1300e-003	0.0320	8.3800e-003	7.0000e-005	1.6300e-003	2.3000e-004	1.8600e-003	4.7000e-004	2.2000e-004	6.9000e-004	0.0000	6.4111	6.4111	4.6000e-004	0.0000	6.4226
Worker	4.5600e-003	3.7400e-003	0.0402	1.0000e-004	9.4400e-003	8.0000e-005	9.5100e-003	2.5100e-003	7.0000e-005	2.5800e-003	0.0000	9.0600	9.0600	3.1000e-004	0.0000	9.0678
Total	**0.0848**	**2.8313**	**0.5900**	**6.9700e-003**	**0.1589**	**0.0109**	**0.1697**	**0.0436**	**0.0104**	**0.0539**	**0.0000**	**682.7487**	**682.7487**	**0.0499**	**0.0000**	**683.9953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0935	0.0000	0.0935	0.0436	0.0000	0.0436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0281	0.1216	1.2370	2.2800e-003		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	207.9047	207.9047	0.0647	0.0000	209.5228
Total	**0.0281**	**0.1216**	**1.2370**	**2.2800e-003**	**0.0935**	**3.7400e-003**	**0.0973**	**0.0436**	**3.7400e-003**	**0.0473**	**0.0000**	**207.9047**	**207.9047**	**0.0647**	**0.0000**	**209.5228**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0791	2.7955	0.5414	6.8000e-003	0.1478	0.0106	0.1584	0.0406	0.0101	0.0507	0.0000	667.2776	667.2776	0.0491	0.0000	668.5049
Vendor	1.1300e-003	0.0320	8.3800e-003	7.0000e-005	1.6300e-003	2.3000e-004	1.8600e-003	4.7000e-004	2.2000e-004	6.9000e-004	0.0000	6.4111	6.4111	4.6000e-004	0.0000	6.4226
Worker	4.5600e-003	3.7400e-003	0.0402	1.0000e-004	9.4400e-003	8.0000e-005	9.5100e-003	2.5100e-003	7.0000e-005	2.5800e-003	0.0000	9.0600	9.0600	3.1000e-004	0.0000	9.0678
Total	**0.0848**	**2.8313**	**0.5900**	**6.9700e-003**	**0.1589**	**0.0109**	**0.1697**	**0.0436**	**0.0104**	**0.0539**	**0.0000**	**682.7487**	**682.7487**	**0.0499**	**0.0000**	**683.9953**

3.5 Building Construction 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1263	1.1922	0.9411	1.4100e-003		0.0763	0.0763		0.0717	0.0717	0.0000	125.8527	125.8527	0.0289	0.0000	126.5753
Total	**0.1263**	**1.1922**	**0.9411**	**1.4100e-003**		**0.0763**	**0.0763**		**0.0717**	**0.0717**	**0.0000**	**125.8527**	**125.8527**	**0.0289**	**0.0000**	**126.5753**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0243	0.6884	0.1802	1.4200e-003	0.0350	4.9600e-003	0.0399	0.0101	4.7400e-003	0.0148	0.0000	137.8630	137.8630	9.9300e-003	0.0000	138.1113
Worker	0.1128	0.0926	0.9949	2.4800e-003	0.2335	1.9100e-003	0.2354	0.0620	1.7600e-003	0.0638	0.0000	224.1825	224.1825	7.6800e-003	0.0000	224.3744
Total	**0.1371**	**0.7810**	**1.1752**	**3.9000e-003**	**0.2684**	**6.8700e-003**	**0.2753**	**0.0721**	**6.5000e-003**	**0.0786**	**0.0000**	**362.0454**	**362.0454**	**0.0176**	**0.0000**	**362.4856**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0207	0.3947	2.3518	1.4100e-003		5.7600e-003	5.7600e-003		5.7600e-003	5.7600e-003	0.0000	133.1818	133.1818	0.0312	0.0000	133.9615
Total	**0.0207**	**0.3947**	**2.3518**	**1.4100e-003**		**5.7600e-003**	**5.7600e-003**		**5.7600e-003**	**5.7600e-003**	**0.0000**	**133.1818**	**133.1818**	**0.0312**	**0.0000**	**133.9615**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0243	0.6884	0.1802	1.4200e-003	0.0350	4.9600e-003	0.0399	0.0101	4.7400e-003	0.0148	0.0000	137.8630	137.8630	9.9300e-003	0.0000	138.1113
Worker	0.1128	0.0926	0.9949	2.4800e-003	0.2335	1.9100e-003	0.2354	0.0620	1.7600e-003	0.0638	0.0000	224.1825	224.1825	7.6800e-003	0.0000	224.3744
Total	**0.1371**	**0.7810**	**1.1752**	**3.9000e-003**	**0.2684**	**6.8700e-003**	**0.2753**	**0.0721**	**6.5000e-003**	**0.0786**	**0.0000**	**362.0454**	**362.0454**	**0.0176**	**0.0000**	**362.4856**

3.5 Building Construction 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0970	0.9283	0.7924	1.1900e-003		0.0574	0.0574		0.0539	0.0539	0.0000	105.6930	105.6930	0.0242	0.0000	106.2984
Total	**0.0970**	**0.9283**	**0.7924**	**1.1900e-003**		**0.0574**	**0.0574**		**0.0539**	**0.0539**	**0.0000**	**105.6930**	**105.6930**	**0.0242**	**0.0000**	**106.2984**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.5513	0.1406	1.2000e-003	0.0297	3.6100e-003	0.0333	8.5600e-003	3.4500e-003	0.0120	0.0000	115.9346	115.9346	8.1400e-003	0.0000	116.1379
Worker	0.0870	0.0694	0.7542	2.0400e-003	0.1981	1.5800e-003	0.1997	0.0526	1.4600e-003	0.0541	0.0000	184.2570	184.2570	5.7800e-003	0.0000	184.4015
Total	**0.1057**	**0.6207**	**0.8948**	**3.2400e-003**	**0.2278**	**5.1900e-003**	**0.2330**	**0.0612**	**4.9100e-003**	**0.0661**	**0.0000**	**300.1916**	**300.1916**	**0.0139**	**0.0000**	**300.5394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.3246	1.9774	1.1900e-003		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	111.8133	111.8133	0.0262	0.0000	112.4671
Total	**0.0173**	**0.3246**	**1.9774**	**1.1900e-003**		**4.6600e-003**	**4.6600e-003**		**4.6600e-003**	**4.6600e-003**	**0.0000**	**111.8133**	**111.8133**	**0.0262**	**0.0000**	**112.4671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.5513	0.1406	1.2000e-003	0.0297	3.6100e-003	0.0333	8.5600e-003	3.4500e-003	0.0120	0.0000	115.9346	115.9346	8.1400e-003	0.0000	116.1379
Worker	0.0870	0.0694	0.7542	2.0400e-003	0.1981	1.5800e-003	0.1997	0.0526	1.4600e-003	0.0541	0.0000	184.2570	184.2570	5.7800e-003	0.0000	184.4015
Total	**0.1057**	**0.6207**	**0.8948**	**3.2400e-003**	**0.2278**	**5.1900e-003**	**0.2330**	**0.0612**	**4.9100e-003**	**0.0661**	**0.0000**	**300.1916**	**300.1916**	**0.0139**	**0.0000**	**300.5394**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0647	0.6725	0.6542	1.0000e-003		0.0377	0.0377		0.0347	0.0347	0.0000	89.4566	89.4566	0.0283	0.0000	90.1642
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0647**	**0.6725**	**0.6542**	**1.0000e-003**		**0.0377**	**0.0377**		**0.0347**	**0.0347**	**0.0000**	**89.4566**	**89.4566**	**0.0283**	**0.0000**	**90.1642**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7700e-003	3.0100e-003	0.0327	9.0000e-005	8.5900e-003	7.0000e-005	8.6600e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.9886	7.9886	2.5000e-004	0.0000	7.9948
Total	**3.7700e-003**	**3.0100e-003**	**0.0327**	**9.0000e-005**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.9886**	**7.9886**	**2.5000e-004**	**0.0000**	**7.9948**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0147	0.1543	0.7552	1.0000e-003		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	89.4565	89.4565	0.0283	0.0000	90.1641
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0147**	**0.1543**	**0.7552**	**1.0000e-003**		**2.4800e-003**	**2.4800e-003**		**2.4800e-003**	**2.4800e-003**	**0.0000**	**89.4565**	**89.4565**	**0.0283**	**0.0000**	**90.1641**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7700e-003	3.0100e-003	0.0327	9.0000e-005	8.5900e-003	7.0000e-005	8.6600e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.9886	7.9886	2.5000e-004	0.0000	7.9948
Total	**3.7700e-003**	**3.0100e-003**	**0.0327**	**9.0000e-005**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.9886**	**7.9886**	**2.5000e-004**	**0.0000**	**7.9948**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2264					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2264**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0120	9.5700e-003	0.1041	2.8000e-004	0.0273	2.2000e-004	0.0276	7.2600e-003	2.0000e-004	7.4600e-003	0.0000	25.4246	25.4246	8.0000e-004	0.0000	25.4446
Total	**0.0120**	**9.5700e-003**	**0.1041**	**2.8000e-004**	**0.0273**	**2.2000e-004**	**0.0276**	**7.2600e-003**	**2.0000e-004**	**7.4600e-003**	**0.0000**	**25.4246**	**25.4246**	**8.0000e-004**	**0.0000**	**25.4446**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2264					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2264**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0120	9.5700e-003	0.1041	2.8000e-004	0.0273	2.2000e-004	0.0276	7.2600e-003	2.0000e-004	7.4600e-003	0.0000	25.4246	25.4246	8.0000e-004	0.0000	25.4446
Total	**0.0120**	**9.5700e-003**	**0.1041**	**2.8000e-004**	**0.0273**	**2.2000e-004**	**0.0276**	**7.2600e-003**	**2.0000e-004**	**7.4600e-003**	**0.0000**	**25.4246**	**25.4246**	**8.0000e-004**	**0.0000**	**25.4446**

3.8 Building Construction 2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0275	0.2461	0.2425	4.0000e-004		0.0153	0.0153		0.0148	0.0148	0.0000	34.4633	34.4633	4.5400e-003	0.0000	34.5768
Total	**0.0275**	**0.2461**	**0.2425**	**4.0000e-004**		**0.0153**	**0.0153**		**0.0148**	**0.0148**	**0.0000**	**34.4633**	**34.4633**	**4.5400e-003**	**0.0000**	**34.5768**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3804	0.0970	8.3000e-004	0.0205	2.4900e-003	0.0230	5.9100e-003	2.3800e-003	8.2900e-003	0.0000	79.9859	79.9859	5.6100e-003	0.0000	80.1262
Worker	0.0600	0.0479	0.5203	1.4100e-003	0.1367	1.0900e-003	0.1378	0.0363	1.0000e-003	0.0373	0.0000	127.1231	127.1231	3.9900e-003	0.0000	127.2227
Total	**0.0729**	**0.4282**	**0.6173**	**2.2400e-003**	**0.1572**	**3.5800e-003**	**0.1608**	**0.0422**	**3.3800e-003**	**0.0456**	**0.0000**	**207.1089**	**207.1089**	**9.6000e-003**	**0.0000**	**207.3489**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1200e-003	0.1392	0.2587	4.0000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	34.4632	34.4632	4.5400e-003	0.0000	34.5767
Total	**7.1200e-003**	**0.1392**	**0.2587**	**4.0000e-004**		**1.5700e-003**	**1.5700e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**34.4632**	**34.4632**	**4.5400e-003**	**0.0000**	**34.5767**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3804	0.0970	8.3000e-004	0.0205	2.4900e-003	0.0230	5.9100e-003	2.3800e-003	8.2900e-003	0.0000	79.9859	79.9859	5.6100e-003	0.0000	80.1262
Worker	0.0600	0.0479	0.5203	1.4100e-003	0.1367	1.0900e-003	0.1378	0.0363	1.0000e-003	0.0373	0.0000	127.1231	127.1231	3.9900e-003	0.0000	127.2227
Total	**0.0729**	**0.4282**	**0.6173**	**2.2400e-003**	**0.1572**	**3.5800e-003**	**0.1608**	**0.0422**	**3.3800e-003**	**0.0456**	**0.0000**	**207.1089**	**207.1089**	**9.6000e-003**	**0.0000**	**207.3489**

B-2 Project Operational Emissions

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Project Solid Waste Disposal Rates

Land Use	Project Units	Solid Waste Factor [a] (lbs/unit/day)	Solid Waste Before Diversion (tons/year)	Diversion Rate [b] (%)	Solid Waste After Diversion
Residential	210 DU	12.23	468.7	76%	112.5
Hotel [c]	156 DU	4	113.9	76%	27.3
Commercial/Restaurant	12.5 KSF	5	11.4	76%	2.7
Total Project					**142.6**

Notes:

a. Generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 2017.

b. City of Los Angeles, Zero Waste Progress Report, (March 2013) 3. According to the Report, the City achieved a landfill diversion rate of approximately 76% by year 2012.

c. Hotel suites count as 2 rooms. The hotel proposes to include 20 suites; therefore, the total number of rooms for solid waste generation purposes is 116 + 2*20 = 156.

Source: ESA 2017.

Project Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 West Yucca Street Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Project Water Demand Rates

Land Use	Units (DU, Rooms, or 1000 sqft)	Wastewater Generation [a] (gal/unit/day)	Water Demand [b] (120% factor) (gal/day)	Indoor Water Demand Rate (gal/year)	Outdoor Water Demand Rate (gal/year)	Indoor Water Reduction (%)	Reduced Indoor Water Demand Rate (gal/year)	Outdoor Water Reduction (%)	Reduced Outdoor Water Demand Rate (gal/year)
Multi-Family Residential	210		33,336	10,139,700	2,027,940	20%	8,111,760	20%	1,622,352
Studio	-	*75*	-						
One Bedroom	*104*	*110*	*13,728*						
Two Bedroom	*95*	*150*	*17,100*						
Three Bedroom	*11*	*190*	*2,508*						
Hotel [c]	156	120	22,464	6,832,800	1,366,560	20%	5,466,240	20%	1,093,248
Restaurant (seats)	509	30	18,324	5,573,550	1,114,710	20%	4,458,840	20%	891,768
Retail	3.45	25	104	31,481	6,296	20%	25,185	20%	5,037
Open Space (Bar/Public Table Area)	0.92	720	795	241,776	48,355	20%	193,421	20%	38,684
Spa (Fitness)	3.85	650	3,003	913,413	182,683	20%	730,730	20%	146,146
Parking Structure	189.71	20	4,553	-	1,661,816	-	-	20%	1,329,453
Total Water Demand				**23,732,720**	**6,408,360**		**18,986,176**		**5,126,688**

Notes:

a. Wastewater generation factors obtained from City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR), dated January 10, 2017 and based on Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories, dated April 6, 2012. These factors do not account for water saving features incorporated into the Project.

b. Water demand rates are calculated based on the wastewater generation rates and increasing the factor by 20% to account for absorption, evaporation, consumption, irrigation, and other losses.

c. Hotel suites count as 2 rooms. The hotel proposes to include 20 suites; therefore, the total number of rooms for water demand purposes is 116 + 2*20 = 156.

Source: Southland Civil Engineering & Survey, LLP 2017; ESA 2017.

Project Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 W Yucca Street Project

Air Quality and Greenhouse Gas Assessment

Title 24 Energy Savings Adjustment

Project Energy Use Factors Adjustment

Nonresidential % savings over Title 24 (2013) =	5.0%
Residential % savings over Title 24 (2013) =	28.0%

	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
Title 24 (2013 - CalEEMod Default)					
Project Nonresidential Land Uses					
City Park [1]	-	-	2.63	-	-
Enclosed Parking with Elevator	3.92	0.19	2.63	-	-
Health Club	2.36	5.75	3.20	13.71	4.45
Hotel	2.68	2.89	2.20	20.02	4.06
Quality Restaurant	8.50	28.16	8.13	43.19	187.78
Recreational Swimming Pool [2]	-	-	3.20	13.71	-
Strip Mall	4.20	3.23	6.43	1.16	0.49
Unenclosed Parking with Elevator	-	0.19	2.63	-	-
Project Residential Land Uses					
Apartment High Rise	194.04	3,277.06	741.44	6,328.91	4,831.00
Title 24 (2016)					
Project Nonresidential Land Uses					
City Park [1]	-	-	2.50	-	-
Enclosed Parking with Elevator	3.72	0.19	2.50	-	-
Health Club	2.24	5.75	3.04	13.02	4.45
Hotel	2.55	2.89	2.09	19.02	4.06
Quality Restaurant	8.08	28.16	7.72	41.03	187.78
Recreational Swimming Pool [2]	-	-	3.04	13.02	-
Strip Mall	3.99	3.23	6.11	1.10	0.49
Unenclosed Parking with Elevator	-	0.19	2.50	-	-
Project Residential Land Uses					
Apartment High Rise	139.71	3,277.06	533.84	4,556.82	4,831.00

Notes:

1. CalEEMod does not provide energy rates for city park land use. For the purposes of this assessment, lighting electricity for city park (i.e., open space) assumed to be equivalent to parking electricity lighting demand.
2. CalEEMod does not provide energy rates for recreational swimming pool land use. For the purposes of this assessment, lighting electricity and T24 natural gas for the pool is assumed to be equivalent to health club electricity lighting and T24 natural gas demand.

Sources:

California Emissions Estimator Model (CalEEMod), version 2016.3.1.

California Energy Commission, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015. Available: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf. Accessed December 2016.

6220 W Yucca Street Project - Operations (Initial Year) - Area, Energy, Water, Waste

South Coast Air Basin, Annual

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	595	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Woodstoves - Assumes residential units equipped with natural gas hearths (210 DU) (SCAQMD Rule 445).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix.

Area Mitigation -

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10

tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	178.50	210.00
tblFireplaces	NumberNoFireplace	21.00	0.00
tblFireplaces	NumberWood	10.50	0.00
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00
tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	595
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	96.60	112.50

tblSolidWaste	SolidWasteGenerationRate	0.05	0.00
tblSolidWaste	SolidWasteGenerationRate	14.42	0.00
tblSolidWaste	SolidWasteGenerationRate	74.46	27.30
tblSolidWaste	SolidWasteGenerationRate	8.26	0.00
tblSolidWaste	SolidWasteGenerationRate	27.59	0.00
tblSolidWaste	SolidWasteGenerationRate	3.62	2.70
tblTripsAndVMT	HaulingTripNumber	227.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,200.00
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00
tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00
tblWoodstoves	NumberCatalytic	10.50	0.00
tblWoodstoves	NumberNoncatalytic	10.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	1,078.9248	1,078.9248	0.0431	0.0135	1,084.0329
Waste						0.0000	0.0000		0.0000	0.0000	28.9262	0.0000	28.9262	1.7095	0.0000	71.6635
Water						0.0000	0.0000		0.0000	0.0000	6.0234	82.0934	88.1169	0.6227	0.0154	108.2834

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	1,056.1329	1,056.1329	0.0422	0.0132	1,061.1311
Waste						0.0000	0.0000		0.0000	0.0000	28.9262	0.0000	28.9262	1.7095	0.0000	71.6635
Water						0.0000	0.0000		0.0000	0.0000	6.0234	82.0934	88.1169	0.6227	0.0154	108.2834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	743.3566	743.3566	0.0362	7.5000e-003	746.4961
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	758.2614	758.2614	0.0370	7.6500e-003	761.4639
NaturalGas Mitigated	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	312.7763	312.7763	5.9900e-003	5.7300e-003	314.6350
NaturalGas Unmitigated	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	320.6634	320.6634	6.1500e-003	5.8800e-003	322.5690

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	223.9062	0.0109	2.2600e-003	224.8519
City Park	46337.5	12.5059	6.1000e-004	1.3000e-004	12.5587
Enclosed Parking with Elevator	571913	154.3522	7.5200e-003	1.5600e-003	155.0041
Health Club	27905.9	7.5315	3.7000e-004	8.0000e-005	7.5633
Hotel	604923	163.2610	7.9600e-003	1.6500e-003	163.9506
Quality Restaurant	397838	107.3715	5.2300e-003	1.0800e-003	107.8250
Recreational Swimming Pool	14713.6	3.9710	1.9000e-004	4.0000e-005	3.9878
Strip Mall	45988.5	12.4117	6.0000e-004	1.3000e-004	12.4641
Unenclosed Parking with	270299	72.9504	3.5600e-003	7.4000e-004	73.2585
Total		**758.2614**	**0.0370**	**7.6700e-003**	**761.4639**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	217.4937	0.0106	2.1900e-003	218.4123
City Park	46337.5	12.5059	6.1000e-004	1.3000e-004	12.5587
Enclosed Parking with Elevator	555318	149.8733	7.3000e-003	1.5100e-003	150.5063
Health Club	27622.5	7.4550	3.6000e-004	8.0000e-005	7.4865
Hotel	594680	160.4966	7.8200e-003	1.6200e-003	161.1745
Quality Restaurant	394182	106.3847	5.1900e-003	1.0700e-003	106.8340
Recreational Swimming Pool	14713.6	3.9710	1.9000e-004	4.0000e-005	3.9878
Strip Mall	45300.2	12.2260	6.0000e-004	1.2000e-004	12.2776
Unenclosed Parking with Elevator	270299	72.9504	3.5600e-003	7.4000e-004	73.2585
Total		**743.3566**	**0.0362**	**7.5000e-003**	**746.4961**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Unmitigated	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1000e-003	0.0435	0.0185	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4288	50.4288	9.7000e-004	9.2000e-004	50.7285
Landscaping	0.0665	0.0251	2.1780	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5523	3.5523	3.4700e-003	0.0000	3.6390
Total	**1.5110**	**0.0687**	**2.1965**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**53.9811**	**53.9811**	**4.4400e-003**	**9.2000e-004**	**54.3675**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1000e-003	0.0435	0.0185	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4288	50.4288	9.7000e-004	9.2000e-004	50.7285
Landscaping	0.0665	0.0251	2.1780	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5523	3.5523	3.4700e-003	0.0000	3.6390
Total	**1.5110**	**0.0687**	**2.1965**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**53.9811**	**53.9811**	**4.4400e-003**	**9.2000e-004**	**54.3675**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	88.1169	0.6227	0.0154	108.2834
Unmitigated	88.1169	0.6227	0.0154	108.2834

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	35.9444	0.2660	6.5800e-003	44.5533
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.8748	9.0000e-005	2.0000e-005	1.8828
Health Club	0.193421 / 0.038684	0.8571	6.3400e-003	1.6000e-004	1.0624
Hotel	5.46624 / 1.09325	24.2217	0.1792	4.4300e-003	30.0230
Quality Restaurant	4.45884 / 0.891768	19.7578	0.1462	3.6200e-003	24.4899
Recreational Swimming Pool	0.73073 / 0.146146	3.2380	0.0240	5.9000e-004	4.0135
Strip Mall	0.025185 / 0.005037	0.1116	8.3000e-004	2.0000e-005	0.1383
Unenclosed Parking with Elevator	0 / 0.704185	2.1115	1.0000e-004	2.0000e-005	2.1204
Total		**88.1169**	**0.6227**	**0.0154**	**108.2834**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	35.9444	0.2660	6.5800e-003	44.5533
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.8748	9.0000e-005	2.0000e-005	1.8828
Health Club	0.193421 / 0.038684	0.8571	6.3400e-003	1.6000e-004	1.0624
Hotel	5.46624 / 1.09325	24.2217	0.1792	4.4300e-003	30.0230
Quality Restaurant	4.45884 / 0.891768	19.7578	0.1462	3.6200e-003	24.4899
Recreational Swimming Pool	0.73073 / 0.146146	3.2380	0.0240	5.9000e-004	4.0135
Strip Mall	0.025185 / 0.005037	0.1116	8.3000e-004	2.0000e-005	0.1383
Unenclosed Parking with Elevator	0 / 0.704185	2.1115	1.0000e-004	2.0000e-005	2.1204
Total		**88.1169**	**0.6227**	**0.0154**	**108.2834**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.9262	1.7095	0.0000	71.6635
Unmitigated	28.9262	1.7095	0.0000	71.6635

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	112.5	22.8365	1.3496	0.0000	56.5764
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	27.3	5.5417	0.3275	0.0000	13.7292
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.7	0.5481	0.0324	0.0000	1.3578
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9262**	**1.7095**	**0.0000**	**71.6635**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	112.5	22.8365	1.3496	0.0000	56.5764
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	27.3	5.5417	0.3275	0.0000	13.7292
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.7	0.5481	0.0324	0.0000	1.3578
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9262**	**1.7095**	**0.0000**	**71.6635**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

6220 W Yucca Street Project - Operations (2024) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2024
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	533	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 40% RPS by 2024.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	533
tblProjectCharacteristics	OperationalYear	2018	2024
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	999.9127	999.9127	0.0431	0.0135	1,005.0208
Water						0.0000	0.0000		0.0000	0.0000	6.0234	73.5392	79.5626	0.6227	0.0154	99.7291

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	978.6739	978.6739	0.0422	0.0132	983.6721
Water						0.0000	0.0000		0.0000	0.0000	6.0234	73.5392	79.5626	0.6227	0.0154	99.7291

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	665.8976	665.8976	0.0362	7.5000e-003	669.0371
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	679.2493	679.2493	0.0370	7.6500e-003	682.4518

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	200.5748	0.0109	2.2600e-003	201.5205
City Park	46337.5	11.2028	6.1000e-004	1.3000e-004	11.2556
Enclosed Parking with Elevator	571913	138.2684	7.5200e-003	1.5600e-003	138.9203
Health Club	27905.9	6.7467	3.7000e-004	8.0000e-005	6.7785
Hotel	604923	146.2489	7.9600e-003	1.6500e-003	146.9385
Quality Restaurant	397838	96.1832	5.2300e-003	1.0800e-003	96.6367
Recreational Swimming Pool	14713.6	3.5572	1.9000e-004	4.0000e-005	3.5740
Strip Mall	45988.5	11.1184	6.0000e-004	1.3000e-004	11.1708
Unenclosed Parking with Elevator	270299	65.3488	3.5600e-003	7.4000e-004	65.6569
Total		**679.2493**	**0.0370**	**7.6700e-003**	**682.4518**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	194.8305	0.0106	2.1900e-003	195.7490
City Park	46337.5	11.2028	6.1000e-004	1.3000e-004	11.2556
Enclosed Parking with Elevator	555318	134.2562	7.3000e-003	1.5100e-003	134.8892
Health Club	27622.5	6.6782	3.6000e-004	8.0000e-005	6.7096
Hotel	594680	143.7726	7.8200e-003	1.6200e-003	144.4505
Quality Restaurant	394182	95.2993	5.1900e-003	1.0700e-003	95.7486
Recreational Swimming Pool	14713.6	3.5572	1.9000e-004	4.0000e-005	3.5740
Strip Mall	45300.2	10.9520	6.0000e-004	1.2000e-004	11.0036
Unenclosed Parking with Elevator	270299	65.3488	3.5600e-003	7.4000e-004	65.6569
Total		**665.8976**	**0.0362**	**7.5000e-003**	**669.0371**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	79.5626	0.6227	0.0154	99.7291
Unmitigated	79.5626	0.6227	0.0154	99.7291

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	32.4671	0.2660	6.5800e-003	41.0760
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.6795	9.0000e-005	2.0000e-005	1.6874
Health Club	0.193421 / 0.038684	0.7742	6.3400e-003	1.6000e-004	0.9794
Hotel	5.46624 / 1.09325	21.8785	0.1792	4.4300e-003	27.6797
Quality Restaurant	4.45884 / 0.891768	17.8464	0.1462	3.6200e-003	22.5785
Recreational Swimming Pool	0.73073 / 0.146146	2.9247	0.0240	5.9000e-004	3.7002
Strip Mall	0.025185 / 0.005037	0.1008	8.3000e-004	2.0000e-005	0.1275
Unenclosed Parking with Elevator	0 / 0.704185	1.8915	1.0000e-004	2.0000e-005	1.9004
Total		**79.5626**	**0.6227**	**0.0154**	**99.7291**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	32.4671	0.2660	6.5800e-003	41.0760
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.6795	9.0000e-005	2.0000e-005	1.6874
Health Club	0.193421 / 0.038684	0.7742	6.3400e-003	1.6000e-004	0.9794
Hotel	5.46624 / 1.09325	21.8785	0.1792	4.4300e-003	27.6797
Quality Restaurant	4.45884 / 0.891768	17.8464	0.1462	3.6200e-003	22.5785
Recreational Swimming Pool	0.73073 / 0.146146	2.9247	0.0240	5.9000e-004	3.7002
Strip Mall	0.025185 / 0.005037	0.1008	8.3000e-004	2.0000e-005	0.1275
Unenclosed Parking with Elevator	0 / 0.704185	1.8915	1.0000e-004	2.0000e-005	1.9004
Total		**79.5626**	**0.6227**	**0.0154**	**99.7291**

6220 W Yucca Street Project - Operations (2027) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	488	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 45% RPS by 2027.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	488
tblProjectCharacteristics	OperationalYear	2018	2027
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	942.5652	942.5652	0.0431	0.0135	947.6733
Water						0.0000	0.0000		0.0000	0.0000	6.0234	67.3304	73.3538	0.6227	0.0154	93.5204

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	922.4536	922.4536	0.0422	0.0132	927.4519
Water						0.0000	0.0000		0.0000	0.0000	6.0234	67.3304	73.3538	0.6227	0.0154	93.5204

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	609.6773	609.6773	0.0362	7.5000e-003	612.8169
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	621.9018	621.9018	0.0370	7.6500e-003	625.1043

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	183.6407	0.0109	2.2600e-003	184.5864
City Park	46337.5	10.2570	6.1000e-004	1.3000e-004	10.3098
Enclosed Parking with Elevator	571913	126.5947	7.5200e-003	1.5600e-003	127.2466
Health Club	27905.9	6.1771	3.7000e-004	8.0000e-005	6.2089
Hotel	604923	133.9015	7.9600e-003	1.6500e-003	134.5910
Quality Restaurant	397838	88.0627	5.2300e-003	1.0800e-003	88.5162
Recreational Swimming Pool	14713.6	3.2569	1.9000e-004	4.0000e-005	3.2737
Strip Mall	45988.5	10.1797	6.0000e-004	1.3000e-004	10.2321
Unenclosed Parking with Elevator	270299	59.8316	3.5600e-003	7.4000e-004	60.1397
Total		**621.9018**	**0.0370**	**7.6700e-003**	**625.1043**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	178.3814	0.0106	2.1900e-003	179.2999
City Park	46337.5	10.2570	6.1000e-004	1.3000e-004	10.3098
Enclosed Parking with Elevator	555318	122.9213	7.3000e-003	1.5100e-003	123.5543
Health Club	27622.5	6.1143	3.6000e-004	8.0000e-005	6.1458
Hotel	594680	131.6342	7.8200e-003	1.6200e-003	132.3121
Quality Restaurant	394182	87.2534	5.1900e-003	1.0700e-003	87.7027
Recreational Swimming Pool	14713.6	3.2569	1.9000e-004	4.0000e-005	3.2737
Strip Mall	45300.2	10.0273	6.0000e-004	1.2000e-004	10.0790
Unenclosed Parking with Elevator	270299	59.8316	3.5600e-003	7.4000e-004	60.1397
Total		**609.6773**	**0.0362**	**7.5000e-003**	**612.8169**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	73.3538	0.6227	0.0154	93.5204
Unmitigated	73.3538	0.6227	0.0154	93.5204

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	29.9433	0.2660	6.5800e-003	38.5521
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.5377	9.0000e-005	2.0000e-005	1.5456
Health Club	0.193421 / 0.038684	0.7140	6.3400e-003	1.6000e-004	0.9193
Hotel	5.46624 / 1.09325	20.1777	0.1792	4.4300e-003	25.9790
Quality Restaurant	4.45884 / 0.891768	16.4591	0.1462	3.6200e-003	21.1912
Recreational Swimming Pool	0.73073 / 0.146146	2.6974	0.0240	5.9000e-004	3.4729
Strip Mall	0.025185 / 0.005037	0.0930	8.3000e-004	2.0000e-005	0.1197
Unenclosed Parking with Elevator	0 / 0.704185	1.7318	1.0000e-004	2.0000e-005	1.7407
Total		**73.3538**	**0.6227**	**0.0154**	**93.5204**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	29.9433	0.2660	6.5800e-003	38.5521
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.5377	9.0000e-005	2.0000e-005	1.5456
Health Club	0.193421 / 0.038684	0.7140	6.3400e-003	1.6000e-004	0.9193
Hotel	5.46624 / 1.09325	20.1777	0.1792	4.4300e-003	25.9790
Quality Restaurant	4.45884 / 0.891768	16.4591	0.1462	3.6200e-003	21.1912
Recreational Swimming Pool	0.73073 / 0.146146	2.6974	0.0240	5.9000e-004	3.4729
Strip Mall	0.025185 / 0.005037	0.0930	8.3000e-004	2.0000e-005	0.1197
Unenclosed Parking with Elevator	0 / 0.704185	1.7318	1.0000e-004	2.0000e-005	1.7407
Total		**73.3538**	**0.6227**	**0.0154**	**93.5204**

6220 W Yucca Street Project - Operations (2030) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2030
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	444	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 50% RPS by 2030.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	444
tblProjectCharacteristics	OperationalYear	2018	2030
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	886.4921	886.4921	0.0431	0.0135	891.6002
Water						0.0000	0.0000		0.0000	0.0000	6.0234	61.2596	67.2831	0.6227	0.0154	87.4496

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	867.4827	867.4827	0.0422	0.0132	872.4810
Water						0.0000	0.0000		0.0000	0.0000	6.0234	61.2596	67.2831	0.6227	0.0154	87.4496

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	554.7064	554.7064	0.0362	7.5000e-003	557.8460
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	565.8286	565.8286	0.0370	7.6500e-003	569.0312

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	167.0830	0.0109	2.2600e-003	168.0286
City Park	46337.5	9.3321	6.1000e-004	1.3000e-004	9.3850
Enclosed Parking with Elevator	571913	115.1804	7.5200e-003	1.5600e-003	115.8323
Health Club	27905.9	5.6201	3.7000e-004	8.0000e-005	5.6519
Hotel	604923	121.8284	7.9600e-003	1.6500e-003	122.5179
Quality Restaurant	397838	80.1226	5.2300e-003	1.0800e-003	80.5761
Recreational Swimming Pool	14713.6	2.9633	1.9000e-004	4.0000e-005	2.9800
Strip Mall	45988.5	9.2619	6.0000e-004	1.3000e-004	9.3143
Unenclosed Parking with Elevator	270299	54.4369	3.5600e-003	7.4000e-004	54.7450
Total		**565.8286**	**0.0370**	**7.6700e-003**	**569.0312**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	162.2978	0.0106	2.1900e-003	163.2164
City Park	46337.5	9.3321	6.1000e-004	1.3000e-004	9.3850
Enclosed Parking with Elevator	555318	111.8382	7.3000e-003	1.5100e-003	112.4712
Health Club	27622.5	5.5630	3.6000e-004	8.0000e-005	5.5945
Hotel	594680	119.7656	7.8200e-003	1.6200e-003	120.4434
Quality Restaurant	394182	79.3863	5.1900e-003	1.0700e-003	79.8356
Recreational Swimming Pool	14713.6	2.9633	1.9000e-004	4.0000e-005	2.9800
Strip Mall	45300.2	9.1232	6.0000e-004	1.2000e-004	9.1749
Unenclosed Parking with Elevator	270299	54.4369	3.5600e-003	7.4000e-004	54.7450
Total		**554.7064**	**0.0362**	**7.5000e-003**	**557.8460**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	67.2831	0.6227	0.0154	87.4496
Unmitigated	67.2831	0.6227	0.0154	87.4496

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	27.4755	0.2660	6.5800e-003	36.0844
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.3990	9.0000e-005	2.0000e-005	1.4070
Health Club	0.193421 / 0.038684	0.6551	6.3400e-003	1.6000e-004	0.8604
Hotel	5.46624 / 1.09325	18.5148	0.1792	4.4300e-003	24.3160
Quality Restaurant	4.45884 / 0.891768	15.1026	0.1462	3.6200e-003	19.8347
Recreational Swimming Pool	0.73073 / 0.146146	2.4751	0.0240	5.9000e-004	3.2506
Strip Mall	0.025185 / 0.005037	0.0853	8.3000e-004	2.0000e-005	0.1120
Unenclosed Parking with Elevator	0 / 0.704185	1.5756	1.0000e-004	2.0000e-005	1.5845
Total		**67.2831**	**0.6227**	**0.0154**	**87.4496**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	27.4755	0.2660	6.5800e-003	36.0844
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.3990	9.0000e-005	2.0000e-005	1.4070
Health Club	0.193421 / 0.038684	0.6551	6.3400e-003	1.6000e-004	0.8604
Hotel	5.46624 / 1.09325	18.5148	0.1792	4.4300e-003	24.3160
Quality Restaurant	4.45884 / 0.891768	15.1026	0.1462	3.6200e-003	19.8347
Recreational Swimming Pool	0.73073 / 0.146146	2.4751	0.0240	5.9000e-004	3.2506
Strip Mall	0.025185 / 0.005037	0.0853	8.3000e-004	2.0000e-005	0.1120
Unenclosed Parking with Elevator	0 / 0.704185	1.5756	1.0000e-004	2.0000e-005	1.5845
Total		**67.2831**	**0.6227**	**0.0154**	**87.4496**

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Solar Photovoltaic Panel Electricity Demand

Land Use [a]	Electricity Demand kilowatt-hours/year		Reduced Demand with Solar Photovoltaics	
Apartments High Rise	805,868.0	→	758,390.0	94.11%
City Park	46,337.5			
Enclosed Parking with Elevator	555,318.0			
Health Club	27,622.5			
Hotel	594,680.0			
Quality Restaurant	394,182.0			
Recreational Swimming Pool	14,713.6			
Strip Mall	45,300.2			
Unenclosed Parking with Elevator	270,299.0			
	2,754,321			
Solar 30 kW Photovoltaics [b]	47,478			
Percent of Project Total	1.72%			

Notes:

a. Project electricity demand estimated from CalEEMod (2016.3.1)

b. Electricity provided by 30 kW Photovoltaics based on data from U.S. Department of Energy, National Renewable Energy Laboratory, PVWatts Calculator, http://pvwatts.nrel.gov/pvwatts.php.

NREL
NATIONAL RENEWABLE ENERGY LABORATORY

Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at http://sam.nrel.gov) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

Disclaimer: The PVWatts® Model ("Model") is provided by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC ("Alliance") for the U.S. Department Of Energy ("DOE") and may be used for any purpose whatsoever.

The names DOE/NREL/ALLIANCE shall not be used in any representation, advertising, publicity or other manner whatsoever to endorse or promote any entity that adopts or uses the Model. DOE/NREL/ALLIANCE shall not provide

any support, consulting, training or assistance of any kind with regard to the use of the Model or any updates, revisions or new versions of the Model.

YOU AGREE TO INDEMNIFY DOE/NREL/ALLIANCE, AND ITS AFFILIATES, OFFICERS, AGENTS, AND EMPLOYEES AGAINST ANY CLAIM OR DEMAND, INCLUDING REASONABLE ATTORNEYS' FEES, RELATED TO YOUR USE, RELIANCE, OR ADOPTION OF THE MODEL FOR ANY PURPOSE WHATSOEVER. THE MODEL IS PROVIDED BY DOE/NREL/ALLIANCE "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. IN NO EVENT SHALL DOE/NREL/ALLIANCE BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO CLAIMS ASSOCIATED WITH THE LOSS OF DATA OR PROFITS, WHICH MAY RESULT FROM ANY ACTION IN CONTRACT, NEGLIGENCE OR OTHER TORTIOUS CLAIM THAT ARISES OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE MODEL.

The energy output range is based on analysis of 30 years of historical weather data for nearby , and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

47,478 kWh per Year *

System output may range from 45,232 to 48,470kWh per year near this location.

Month	Solar Radiation (kWh / m^2 / day)	AC Energy (kWh)	Energy Value ($)
January	3.93	2,915	371
February	4.91	3,291	419
March	5.45	4,029	513
April	6.14	4,356	555
May	6.56	4,781	609
June	6.64	4,666	594
July	6.92	4,984	635
August	6.88	4,926	628
September	5.71	3,955	504
October	5.07	3,681	469
November	4.32	3,058	390
December	3.88	2,835	361
Annual	**5.53**	**47,477**	**$ 6,048**

Location and Station Identification

Requested Location	6220 Yucca Street, Los Angeles, CA
Weather Data Source	(TMY2) LOS ANGELES, CA 13 mi
Latitude	33.93° N
Longitude	118.4° W

PV System Specifications *(Commercial)*

DC System Size	30 kW
Module Type	Standard
Array Type	Fixed (open rack)
Array Tilt	20°
Array Azimuth	180°
System Losses	14%
Inverter Efficiency	96%
DC to AC Size Ratio	1.1

Economics

Average Cost of Electricity Purchased from Utility	0.13 $/kWh

Performance Metrics

Capacity Factor	18.1%

Yucca Argyle Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Project Operational Emissions - Emergency Generator

Standby Emergency Generator			
Rating:	250	kW	*(kW, HP rating reflect total sitewide need)*
	335	HP	*(conversion from kW to hp)*
Load Factor:	0.74		*(based on CalEEMod Generator Set Load Factor)*
Engine Emissions Tier:	Tier 4		*(compliance with CARB diesel regulations)*
Number of Units:	1		*(kW, HP rating reflect total sitewide need)*
Operating Hours per Unit:	2	hours/day	*(testing/maintenance)*
	50	hours/year	*(testing/maintenance, Regulatory Limit per SCAQMD Rule 1470)*

Emergency Generator Emissions

Units	Greenhouse Gases [1]	
	CO_2	CO_2e
g/HP-hr	526.17	531.48
lbs/hr	287.56	290.47
lbs/day	575.13	580.94
lbs/yr	14,378.20	14,523.43
tons/yr	7.19	7.26
metric tons/yr	6.52	6.59

Notes:

1. Emission factor for CO_2: U.S. Environmental Protection Agency, *AP-42 Compilation of Air Pollutant Emission Factors* , Fifth Edition, Section 3.4, Table 3.4-1. Emissions of GHGs assume 99% of the CO_2e emissions occur as CO_2, which is typical for off-road diesel engines.

Source: ESA PCR, 2017

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

	GHG Emission Factors (metric tons/mile)			
Year	**CO2**	**CH4**	**N2O**	**CO2e**
	1	*25*	*298*	
2015	4.83E-04	3.12E-08	-	4.84E-04
2018	4.51E-04	2.39E-08	-	4.52E-04
2021	4.17E-04	1.90E-08	-	4.18E-04
2022	4.06E-04	1.78E-08	-	4.06E-04
2023	3.92E-04	1.66E-08	-	3.93E-04
2024	3.82E-04	1.58E-08	-	3.83E-04
2025	3.71E-04	1.50E-08	-	3.71E-04
2026	3.61E-04	1.42E-08	-	3.61E-04
2027	3.52E-04	1.36E-08	-	3.52E-04
2028	3.45E-04	1.31E-08	-	3.45E-04
2029	3.38E-04	1.26E-08	-	3.38E-04
2030	3.32E-04	1.22E-08	-	3.32E-04
2031	3.27E-04	1.18E-08	-	3.28E-04
2032	3.23E-04	1.15E-08	-	3.23E-04
2033	3.19E-04	1.12E-08	-	3.19E-04
2034	3.16E-04	1.10E-08	-	3.16E-04
2035	3.13E-04	1.08E-08	-	3.14E-04
2036	3.11E-04	1.06E-08	-	3.12E-04
2037	3.10E-04	1.04E-08	-	3.10E-04
2038	3.09E-04	1.03E-08	-	3.09E-04
2039	3.08E-04	1.02E-08	-	3.08E-04
2040	3.07E-04	1.01E-08	-	3.07E-04
2041	3.07E-04	1.00E-08	-	3.07E-04
2042	3.06E-04	9.94E-09	-	3.07E-04
2043	3.06E-04	9.89E-09	-	3.06E-04
2044	3.06E-04	9.82E-09	-	3.07E-04
2045	3.06E-04	9.76E-09	-	3.07E-04
2046	3.07E-04	9.65E-09	-	3.07E-04
2047	3.07E-04	9.61E-09	-	3.07E-04
2048	3.07E-04	9.59E-09	-	3.08E-04
2049	3.08E-04	9.56E-09	-	3.08E-04
2050	3.08E-04	9.53E-09	-	3.09E-04

Source: EMFAC2014, South Coast Air Basin (Los Angeles County), "Emissions" (or "Burden") mode.

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Scenario	Year	VMT/year	GHG Emission Factors (metric tons/year) CO2	CH4	N2O	CO2e
			1	*25*	*298*	
Project	2021	8,950,895	3,736.75	0.17	-	3,741
	2022	8,950,895	3,632.10	0.16	-	3,636
	2023	8,950,895	3,511.03	0.15	-	3,515
	2024	8,950,895	3,422.04	0.14	-	3,426
	2025	8,950,895	3,317.63	0.13	-	3,321
	2026	8,950,895	3,230.00	0.13	-	3,233
	2027	8,950,895	3,152.14	0.12	-	3,155
	2028	8,950,895	3,084.30	0.12	-	3,087
	2029	8,950,895	3,024.64	0.11	-	3,027
	2030	8,950,895	2,972.82	0.11	-	2,976
	2031	8,950,895	2,930.32	0.11	-	2,933
	2032	8,950,895	2,890.81	0.10	-	2,893
	2033	8,950,895	2,856.75	0.10	-	2,859
	2034	8,950,895	2,827.92	0.10	-	2,830
	2035	8,950,895	2,804.20	0.10	-	2,807
	2036	8,950,895	2,787.01	0.09	-	2,789
	2037	8,950,895	2,772.49	0.09	-	2,775
	2038	8,950,895	2,761.57	0.09	-	2,764
	2039	8,950,895	2,753.52	0.09	-	2,756
	2040	8,950,895	2,747.89	0.09	-	2,750
	2041	8,950,895	2,743.52	0.09	-	2,746
	2042	8,950,895	2,741.51	0.09	-	2,744
	2043	8,950,895	2,740.99	0.09	-	2,743
	2044	8,950,895	2,741.37	0.09	-	2,744
	2045	8,950,895	2,742.46	0.09	-	2,745
	2046	8,950,895	2,744.71	0.09	-	2,747
	2047	8,950,895	2,747.67	0.09	-	2,750
	2048	8,950,895	2,751.15	0.09	-	2,753
	2049	8,950,895	2,755.08	0.09	-	2,757
	2050	8,950,895	2,760.49	0.09	-	2,763

Source: ESA 2017

Appendix C

California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017

ESA

Attachment 2
Statewide Emission Factors for Use With AB 900 Projects

Mobile-Source Emissions

Project applicants under AB 900 may use default GHG emission factors (EFs) from the California Emissions Estimator Model (CalEEMod). However, ARB acknowledges that CalEEMod does not contain the latest mobile-source emissions reductions from State and federal regulations. If an AB 900 project applicant does not wish to use CalEEMod EFs, and the project's mobile sources include "all vehicle classifications," the EFs provided via the EMFAC2014 Web Database provide a quick and easy way to access commonly used emission rates data. The Web Database contains daily emissions and emission rates data for all areas, calendar years and seasons.

See https://www.arb.ca.gov/emfac/2014/.

Electricity Emissions

An AB 900 project applicant may use the local electric utility provider's EFs and electricity intensities for today's electric supply generation.

If an applicant would like to use an EF that represents the State's Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 pounds CO_2/MWh may be used[2]. This 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. It represents a generation supply mix of 67 percent natural gas-fueled combined cycle power plants, and 33 percent renewable energy. ARB believes this marginal profile represents new generation plans in any electric utility territory in California.

[2] LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm, based on analysis with CA-GREET model.

Exhibit 7 Applicant's Acknowledgement and Binding Agreement with the City of Los Angeles

February 21, 2017

Lisa Webber
Deputy Director of Planning
City of Los Angeles
200 N. Spring Street
Los Angeles, CA 90012

RE: Yucca Argyle Project: Acknowledgement of Obligations under Public Resources Code§ 21183(d), (e), and (f)

Dear Ms. Webber:

As you are aware, Riley Realty LP ("Applicant") has applied to the California Governor to request certification of the Yucca Argyle project (the "Project") as a Leadership Project subjected to streamlined environmental review pursuant to the Jobs and Economic Improvement through Environmental Leadership Act of 2011 (the "Act"), California Public Resource Code§ 21178 et seq as amended by SB 743 and SB 734. By this letter, Applicant acknowledges and agrees to its obligations under the Act as set forth at Public Resources Code§ 21183(d), (e), and (f).

As required by Public Resources Code§ 21183(d), Applicant agrees that all mitigation measures required pursuant to CEQA to certify the Project under the Act shall be conditions of approval, and those conditions will be fully enforceable by the City of Los Angeles (the "City") or another agency designated by the City. Applicant agrees that all environmental mitigation measures required to certify the Project under the Act will be monitored and enforced by the City for the life of the obligation.

As required by Public Resources Code§ 21183(e), Applicant agrees to pay the costs of the Court of Appeal in hearing and deciding any case, including payment of the costs for the appointment of a special master if deemed appropriate by the court, in a form and manner specified by the Judicial Council, as provided in the Rules of Court adopted by the Judicial Council pursuant to the Act.

As required by Public Resources Code§ 21183(f), Applicant agrees to pay the costs of preparing the administrative record for the Project, in a form and manner specified by the City, concurrent with review and consideration of the Project pursuant to CEQA and the Act.

Sincerely,

RILEY REALTY, L.P.,
a California limited partnership

By: Champion Enterprises, Inc.,
a Nevada corporation, General Partner

By: Champion Holdings, Inc.,
a California corporation, General Partner

By: _____
Robert D. Champion, President

Acknowledged and agreed by:

_____
Lisa Webber
City of Los Angeles – Deputy Director of Planning

3. Consistency with the General Land Use Designation, Density, Building Intensity, and Applicable Policies Specified for the Project Area in the Adopted Sustainable Community Strategy

ESA PCR

2121 Alton Parkway
Suite 100
Irvine, CA 92606
949.753.7001 phone
949.753.7002 fax

www.esassoc.com

technical memorandum

date	June 14, 2017
to	Scott Morgan, State Clearinghouse Director, Governor's Office of Planning and Research
cc	Kyndra Joy Casper, Esq., Liner LLP Greg Beck, Vice President and Partner, Champion Real Estate Company Mike Harden, Senior Managing Associate, Community Development, ESA
from	Heidi Rous, Air Quality and Noise Group Director, ESA Alan Sako, Senior Air Quality Scientist, ESA
subject	Application for Streamlining Judicial Review Under CEQA - 6220 West Yucca Project: Consistency with the general land use designation, density, building intensity, and applicable policies specified for the project area in the adopted Sustainable Community Strategy

This Technical Memorandum was prepared in response to a request by the Governor's Office of Planning and Research to provide evidence demonstrating that the 6220 West Yucca Project would be consistent with the "general use designation, density, building intensity, and applicable polices specified for the project area in in either a sustainable communities strategy or alternative planning strategy" pursuant to CEQA Statute 21180(b)(1) for the purposes of the Application for Streamlining Judicial Review Under CEQA (Senate Bill 743; Statutes 2013, Chapter 386).

As discussed herein the project would be consistent with the general land use designation, density, and building intensity outlined in the Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Using data collected from local jurisdictions, including General Plans, SCAG categorized existing land use into "land use types," then combined these land use types into 35 place 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 (SCAG, 2016–2040 RTP/SCS, pages 20–21, available at: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx, 2016).

SCAG identified the existing General Plan land uses as Commercial and Services (SCAG Data Request Maps, refer to the attached **Figure 1**). After converting this data into Scenario Planning Zone-level place types, SCAG categorized the area surrounding the project as an urban area (SCAG, 2016–2040 RTP/SCS Background Documentation, Exhibit 13 Forecasted Regional Development Types by Land Development Categories (2012) Los Angeles City Subregion, available at: http://scagrtpscs.net/Documents/2016/draft/d2016RTPSCS_SCSBackgroundDocumentation.pdf, 2016).

The RTP/SCS defines urban areas as "often found within and directly adjacent to moderate and high density urban centers. Nearly all urban growth in these areas would be considered infill or redevelopment. The majority of housing is multi-family and attached single-family (townhome), which tend to consume less water and energy than the large types found in greater proportion in less urban locations. These areas are supported by high levels of regional and local transit service. They have well-connected street networks, and the mix and intensity of uses result in a highly walkable environment. These areas offer enhanced access and connectivity for people who choose not to drive or do not have access to a vehicle" (SCAG, 2016–2040 RTP/SCS, page 20).

The SCAG urban land development category comprises the following urban footprint scenario models, including urban mixed use, urban residential, urban commercial, city mixed use, city residential, and city commercial (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 9, available at: http://www.scagrtpscs.net/Documents/2016/supplemental/LDC_PlaceType.pdf, 2016; SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, available at: http://scagrtpscs.net/documents/2016/supplemental/UrbanFootprint_PlaceTypesSummary.pdf, 2016). The project is consistent with the range of place types within the SCAG urban land development category.

Additionally, the RTP/SCS states that "urban mixed-use districts are exemplified by a variety of intense uses and building types. Typical buildings are between 10 and 40+ stories tall, with offices and/or residential uses and ground-floor retail space. Parking is usually structured below or above ground. Workers, residents, and visitors are well served by transit, and can walk or bicycle for many of their transportation needs." The land use mix for the urban mixed-use place type is approximately 18 percent residential, 16 percent employment, 45 percent mixed-use, and 21 percent open space/civic (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

Urban residential uses are the most intense residential-focused type, and are typically found within or adjacent to major downtown areas. They include high-rise and mid-rise residential towers, with some ground-floor retail space. Parking is usually structured below or above ground. Residents are well served by transit and can walk or bicycle for many of their daily needs (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

City mixed-use areas are transit oriented and walkable, and contain a variety of uses and building types. Typical buildings are between 5 and 30 stories tall, with ground-floor retail space and offices and/or residential on the floors above. Parking is usually structured below or above ground. The land use mix for this place type is typically approximately 28 percent residential, 17 percent employment, 35 percent mixed use, and 20 percent open space/civic. The residential mix is composed of 97 percent multi-family and 3 percent townhomes. The average total net floor-area ratio (FAR) is 3.4, floor count ranges from 3 to 40 stories, and gross density ranges from 10 to 75 households per acre (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

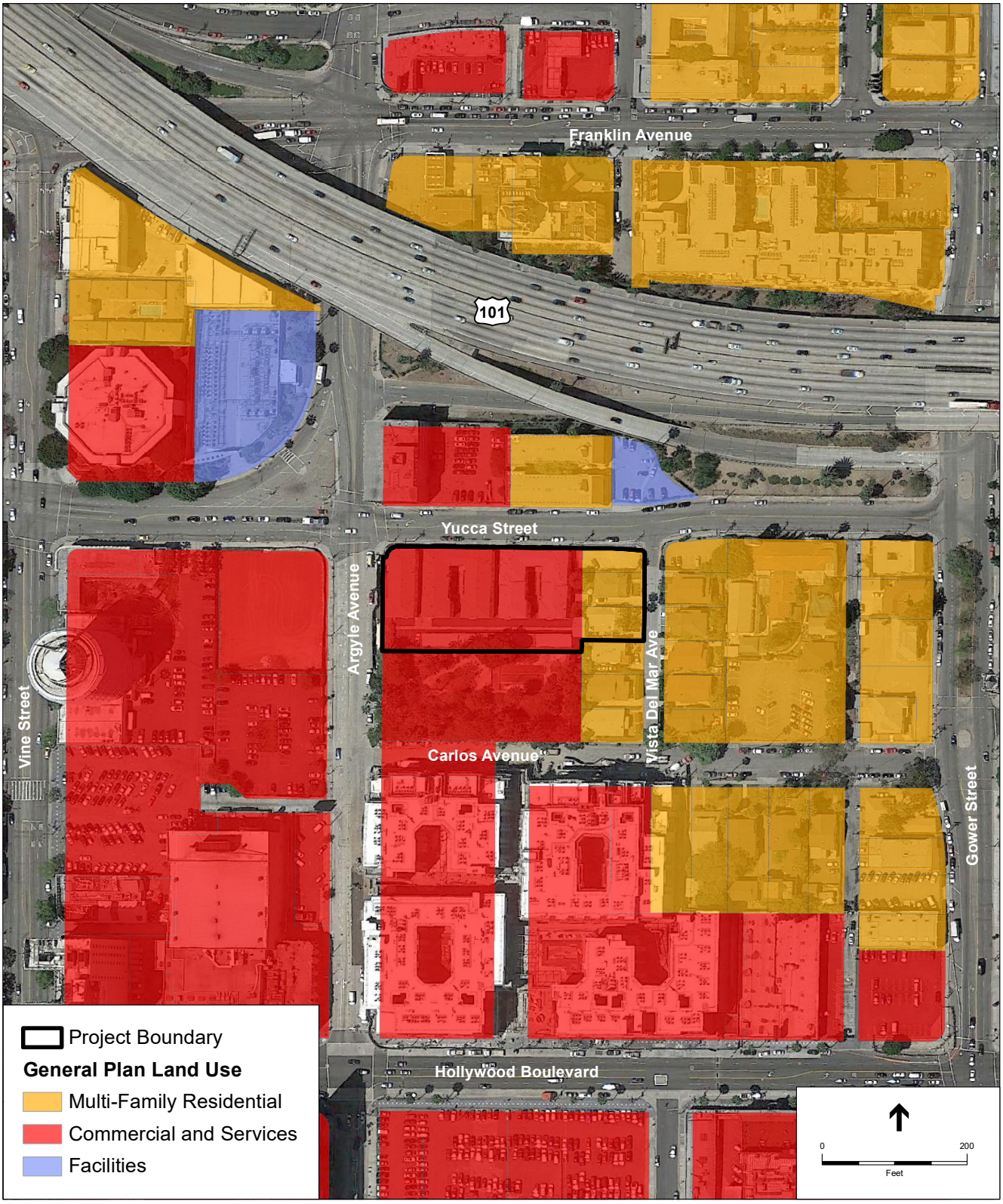
The RTP/SCS describes city residential place types as "dominated by mid- and high-rise residential towers, with some ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured below or above ground. Residents are well served by transit, and can walk or bicycle for many of their daily needs." The land use mix for this place type is typically approximately 65 percent residential, 4 percent employment, 11 percent mixed use, and 20 percent open space/civic. The residential mix is 97 percent multi-family and 3 percent townhome. The average total net FAR is 2.9, floor count ranges from 5 to 40 stories, and the

gross density ranges from 35 to 37 households per acre (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

The project consists of the development of mixed-use residential units, hotel, and commercial retail uses in a highly urbanized part of the city of Los Angeles. Surrounding land uses include commercial uses to the west of the project site, across Argyle Avenue and Yucca Street, and residential uses to the east, along Yucca Street and across Vista Del Mar Avenue. Mixed-use residential uses are located to the south of the project site, across Carlos Avenue.

The project site (1756 and 1760 North Argyle Avenue, 6210–6224 West Yucca Street; and 1765, 1771, 1777, and 1779 North Vista Del Mar Avenue) is currently occupied by one single-family residence, one duplex with a detached garage and studio apartment over the garage, and three two-story apartment buildings with associated carports and paved surface parking areas. The proposed project would consist of two buildings. Building 1, located at the southeast corner of Yucca Street and Argyle Avenue, would include a six-level podium structure, which would include two fully subterranean levels (P3 and P2); two semi-subterranean levels (P1 and L1) due to the site's topography; and two entirely aboveground levels (L2 and L3). Building 1 would also include levels 4 through 20. Building 1 would include a mix of commercial, hotel, and residential uses. Building 2, located at the corner of Yucca Street and Vista Del Mar Avenue, would include three residential levels, over a two-story podium structure, which would include one subterranean parking level (P2), one semi-subterranean parking level (P1), and would be up to four stories aboveground along Vista Del Mar Avenue, and three stories aboveground along Yucca Street. Building 2 would consist of only residential uses.

Overall, the project (both buildings) would include 210 multi-family residential units, 136 hotel rooms, and approximately 12,500 square feet of commercial/restaurant uses. Parking would be provided on site within the six-level parking structure housed within the podium structure of Building 1 and the two-level parking structure housed within Building 2. The proposed project is located within the Hollywood Redevelopment Plan area and the Plan limits Regional Center Commercial designations to a 4.5:1 FAR with a maximum of 6:1 FAR with City Planning Commission approval. These uses are consistent with the SCAG urban land development category.



SOURCE: Google Earth, 2014-04-23 (Aerial); SCAG 2012.

6220 West Yucca Project

Figure 1

2012 SCAG General Plan Land Use Codes

ESA PCR

4. California Air Resources Board (CARB) Staff Evaluation

Air Resources Board

Mary D. Nichols, Chair
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

June 15, 2017

Mr. Ken Alex, Director
Office of Governor Edmund G. Brown, Jr.
Office of Planning and Research
State Capitol
1400 10th Street
Sacramento, California 95814

Dear Mr. Alex:

The Jobs and Economic Improvement through Environmental Leadership Act (Assembly Bill 900, statutes of 2011) authorizes the Governor to certify a leadership project for streamlining under the California Environmental Quality Act (CEQA) if the project meets certain conditions. One condition for certification is that the project does not result in any net additional emissions of greenhouse gases (GHG), including GHG emissions from employee transportation, as determined by the California Air Resources Board (CARB).

On April 10, 2017, Riley Realty, L.P. (the Applicant) submitted an application to CARB with its proposed GHG quantification methodologies and supporting documentation for the proposed Yucca Argyle project (proposed project), as required by the Governor's Guidelines for Streamlining Judicial Review under CEQA. CARB staff conducted an evaluation of the GHG emission estimates and voluntary improvement measures submitted by the Applicant, and confirmed that the Applicant's methodology, calculations, and documentation are adequate. Based on the documentation submitted by the Applicant, CARB has determined the proposed project does not result in any net additional GHG emissions for purposes of certification under AB 900.

CARB staff's evaluation and an Executive Order noting CARB's determination are enclosed.

If you have any questions regarding the evaluation or determination, please contact Ms. Karen Magliano, Chief, Air Quality Planning and Science Division at (916) 322-5350, or by email at karen.magliano@arb.ca.gov.

Sincerely,

Richard W. Corey
Executive Officer

Enclosures

Electronic cc:

Paul Bauer, Mercury LLC
PBauer@mercuryllc.com

Kyndra Joy Casper, Liner Law
kcasper@linerlaw.com

Greg Beck, Champion Real Estate Company
gbeck@championdev.com

Mike Harden, Environmental Science Associates
MHarden@esassoc.com

Alan Sako, Environmental Science Associates
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Scott Morgan, Governor's Office of Planning and Research
Scott.Morgan@OPR.CA.GOV

Karen Magliano, Chief Air Quality Planning and Science Division
Karen.Magliano@arb.ca.gov

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER G-07-044

Relating to Determination of No Net Additional Greenhouse Gas Emissions Under Public Resources Code section 21183, subdivision (c) for 6220 West Yucca Street Project

WHEREAS, in September 2011, Governor Brown signed the "Jobs and Economic Improvement through Environmental Leadership Act" (AB 900);

WHEREAS, under AB 900, the Governor may certify certain projects for judicial streamlining under the California Environmental Quality Act (CEQA) if certain conditions are met;

WHEREAS, under California Public Resources Code section 21183, subdivision (c), one condition for the Governor's certification is that the project does not result in any net additional emission of greenhouse gases (GHG), as determined by the California Air Resources Board (CARB);

WHEREAS, the Governor's Guidelines for Streamlining Judicial Review under the California Environmental Quality Act require for purposes of CARB's determination on GHG emissions that an applicant submit electronically to CARB a proposed methodology for quantifying the project's net additional GHG emissions and documentation that the project does not result in any net additional GHG emissions;

WHEREAS, pursuant to the Governor's Guidelines, Riley Realty, L.P. (the Applicant) submitted its initial proposed GHG quantification methodologies and documentation to CARB on the proposed 6220 West Yucca Street Project (proposed project) on April 10, 2017, and clarifying documentation submitted on June 12, 2017, when the application was deemed complete;

WHEREAS, the application submitted for the proposed project estimates the project's net additional GHG emissions as follows:

1. Construction GHG Emissions: Additional 2,245 metric tons CO2e emissions from project construction and demolition activities. Construction-generated GHG emissions were estimated from equipment used for construction activities and from both on-site and off-site vehicles and equipment;

2. Operation-Related GHG Emissions: Additional 4,405 metric tons CO2e emissions during the first full year of project operation (2021) and declining operational emissions in future years over the lifetime of the project.

WHEREAS, in the application, the applicant proposes to secure 2,245 metric tons of one-time carbon credits to offset emissions generated during construction and to secure 103,669 metric tons of carbon credits on a net present value basis to offset the net increase in emissions generated during project operation through a voluntary carbon credits market from a qualified GHG emissions broker to fully offset these identified construction and operational GHG emissions;

WHEREAS, CARB staff reviewed and evaluated the application in consultation with the lead agency (the City of Los Angeles);

WHEREAS, CARB staff conducted an evaluation of the GHG emission estimates and voluntary mitigation included in the application submitted by the applicant and confirmed the documentation provides an adequate technical basis for estimating total GHG emissions and voluntary mitigation for the proposed project;

WHEREAS, CARB's review and determination on the proposed project's GHG emissions is for the limited purpose of the Governor's findings and certification under AB 900 and should not be construed as meeting any other requirement under State or federal law, including CEQA; the lead agency remains responsible for full CEQA compliance for this project;

NOW, THEREFORE, based on CARB Staff's Evaluation (Attachment 1) of the documentation submitted by the Applicant (Attachment 2), I determine that the 6220 West Yucca Street Project does not result in any net additional GHG emissions pursuant to Public Resources Code section 21183, subdivision (c) for purposes of certification under AB 900.

Executed this 15th day of June 2017, at Sacramento, California.

Richard W. Corey
Executive Officer

Attachments

1. CARB Staff Evaluation of AB 900 Application for 6220 West Yucca Street Project
2. 6220 West Yucca Street Project Greenhouse Gas Emissions Methodology Documentation for AB 900 Application

ATTACHMENT 1

ARB Staff Evaluation of AB 900 Application for

6220 West Yucca Street Project

CARB Staff Evaluation of AB 900 Application for 6220 West Yucca Street Project

June 15, 2017

I. Introduction

Riley Realty, L.P. (the Applicant) proposes to redevelop an approximately 1.16-acre (net area) property on the south side of West Yucca Street between Argyle Avenue and Vista Del Mar Avenue, generally referenced as 6220 West Yucca Street (project site), with a mixed-use residential, hotel, and commercial/restaurant project (the project). The property is located within the Hollywood community of the City of Los Angeles. There are currently 44 residential units on the project site, all of which would be demolished and removed to allow development of the project. The City of Los Angeles is the Lead Agency, and the developer is the Applicant seeking certification for the project under Assembly Bill 900 (AB 900), the Jobs and Economic Improvement through Environmental Leadership Act.

AB 900 provides for streamlined judicial review under the California Environmental Quality Act (CEQA) if certain conditions are met. One condition is that the proposed project does not result in any net additional greenhouse gas (GHG) emissions as determined by the California Air Resources Board (CARB). This is the only condition that involves a determination by CARB. CARB staff prepared this technical evaluation of the GHG emissions from the proposed project as part of its determination.

This evaluation includes an executive summary, an overview of the AB 900 zero net additional GHG emissions requirement, a brief description of the proposed project, a technical review and assessment of GHG emissions information provided by the Applicant in its AB 900 application, and CARB staff's recommendation on the AB 900 GHG emissions determination for the proposed project.

II. Executive Summary

CARB staff reviewed the projected GHG emissions provided by the Applicant and confirmed the GHG emission factors used to estimate construction and operational emissions. Staff concurs with the GHG quantification in the Applicant's proposal (Attachment 2).

Based on an evaluation of the documentation provided by the Applicant, CARB staff concludes that, with commitments to purchase voluntary carbon credits documented in Attachment 2, the proposed project would not result in any net additional GHG emissions relative to the baseline as summarized in Tables 1 and 2 below. CARB staff

confirms that the proposed project would meet the GHG emissions requirements of the Jobs and Economic Improvement through Environmental Leadership Act. (Pub. Resources Code, §21178 et seq.) A detailed description of emissions by source is reviewed in subsequent sections.

Table 1 shows project GHG emissions generated by construction activities. Project construction is expected to be completed over two to three years, with demolition activities beginning as early as 2018. The Applicant has committed to offset the GHG emissions generated during project construction. No later than six months after the issuance of a Temporary Certificate of Occupancy for the project, the applicant will provide to the lead agency, the City of Los Angeles, a calculation of the net additional emissions resulting from the construction of the project, calculated in accordance with the methodology agreed upon by CARB in connection with the AB 900 certification of the project. The applicant will provide courtesy copies of the calculations to CARB and the Governor's Office promptly following transmittal of the calculations to the City of Los Angeles. Additionally, the applicant has agreed to enter into one or more contracts to purchase voluntary carbon credits from a qualified GHG emissions broker in an amount sufficient to offset the Construction Emissions and submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office.

Table 1: Project Construction-Generated GHG Emissions[1]

Construction Year	GHG Emissions (MT CO_2e/year)
2018-2019	1,466
2020	779
Total	**2,245**
GHG Credits Required[2]	2,245

Notes:
GHG = greenhouse gas; MT CO2e = Metric tons carbon dioxide equivalent;
[1] Source: as documented in Attachment 2, and confirmed by CARB staff.
[2] Applicant committed to purchase carbon credits in an amount sufficient to offset net increase in construction-related GHG emissions. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within South Coast Air Quality Management District jurisdiction; (4) off-site within the State; and (5) off-site out of State.

Table 2 summarizes the net increase in project operation related GHG emissions through the lifetime of the proposed project, which the Applicant has defined as 30 years. The continued operation of the existing land uses that would be demolished under the proposed project serves as the reference point for the purpose of defining a baseline. The Applicant has committed to execute one or more contracts to offset the net increase in GHG emissions generated during project operation for any building in

the project prior to issuance of any Certificate of Occupancy for that building. The Applicant will purchase voluntary carbon credits for the net increase in operational emissions on a net-present value basis. The Applicant has agreed to submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office. The commitment to enter into contracts to offset net additional GHG emissions will be a condition of project approval, which represents a binding and enforceable agreement between the applicant, or its successor, and the lead agency, the City of Los Angeles.

Table 2: Comparison of Baseline and Project Operation-Related GHG Emissions[1]

Year[2]	GHG Emissions (MT CO_2e/year)			
	Baseline	Proposed Project	Difference	GHG Credits Required[3]
2021	626	5,031	4,405	4,405
2022	626	4,926	4,300	4,300
2023	626	4,805	4,179	4,179
2024	626	4,632	4,006	4,006
2025	626	4,527	3,901	3,901
2026	626	4,439	3,813	3,813
2027	626	4,299	3,673	3,673
2028	626	4,231	3,605	3,605
2029	626	4,171	3,545	3,545
2030	626	4,060	3,434	3,434
2031	626	4,017	3,391	3,391
2032	626	3,977	3,351	3,351
2033	626	3,943	3,317	3,317
2034	626	3,914	3,288	3,288
2035	626	3,891	3,265	3,265
2036	626	3,873	3,247	3,247
2037	626	3,859	3,233	3,233
2038	626	3,848	3,222	3,222
2039	626	3,840	3,214	3,214
2040	626	3,834	3,208	3,208
2041	626	3,830	3,204	3,204
2042	626	3,828	3,202	3,202
2043	626	3,827	3,201	3,201
2044	626	3,828	3,202	3,202
2045	626	3,829	3,203	3,203
2046	626	3,831	3,205	3,205
2047	626	3,834	3,208	3,208
2048	626	3,837	3,211	3,211
2049	626	3,841	3,215	3,215
2050	626	3,847	3,221	3,221
Total				**103,669**

Notes: GHG = greenhouse gas; MT CO_2e = Metric tons carbon dioxide equivalent.
[1] Source: as documented in Attachment 2, and confirmed by CARB staff.
[2] Applicant estimates a useful life of project of 30 years with first year of occupancy as early as 2021
[3] Applicant commits to purchase carbon credits in an amount sufficient to offset net increase in operation-related GHG emissions. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within South Coast Air Quality Management District jurisdiction; (4) off-site within the State; and (5) off-site out of State.

III. Overview of AB 900

AB 900, as amended by SB 743 (2013) and SB 734 (2016) provides streamlined judicial review for development projects if, among other conditions, the "project does not result in any net additional emission of greenhouse gases, including greenhouse gas emissions from employee transportation, as determined by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code." (Pub. Resources Code, §21183, subd. (c).)

The Governor's Guidelines for AB 900 applications require applicants to submit a proposed methodology for quantifying the project's GHG emissions and documentation that the project will not result in any net additional GHG emissions. The documentation must quantify direct and indirect GHG emissions associated with the project's construction and operation, including GHG emissions from employee transportation, and the net emissions of the project after accounting for any mitigation measures. The project's net emissions, after mitigation, must be monitored and enforced consistent with Public Resources Code section 21183, subdivision (d).

The role of CARB in reviewing AB 900 applications for purposes of the Governor's certification is limited to an evaluation of the quantification methods and documentation submitted by the Applicant to determine whether the project would result in no net additional emissions of GHG emissions. CARB staff evaluated the technical elements of the project application, including existing emissions in the absence of the project (i.e., baseline), input data and assumptions used for emissions and mitigation calculations, quantification methods, and an estimate of the project's net GHG emissions after any mitigation.

IV. Existing Conditions

The proposed project site is located within the Hollywood community of the City of Los Angeles. There are currently one single family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas. Overall, there are a total of 44 residential units on the project site.

V. Proposed Project Description

The proposed project would involve construction of a mixed-use development including 210 multi-family residential units in 202,545 square feet, 136 hotel rooms in 58,540 square feet, and approximately 12,500 square feet of commercial/restaurant uses in two buildings. Building 1, up to 20 stories tall on the southeast corner of Argyle Avenue and Yucca Street, would include all three uses and would be built over six levels of parking,

including two fully subterranean levels, two semi-subterranean levels, and two levels above ground. Building 2, located on the southwest corner of Vista Del Mar and Yucca Street would include three residential levels over a two-level podium parking structure (including one subterranean level and one at-grade level). Building 2 would be a total of four stories above ground and would contain only residential uses. In total, the Project would be approximately 273,585 square feet. The baseline and proposed land uses are summarized in Table 3.

Table 3: Baseline and Proposed Land Uses

Land Use Type	Baseline Land Uses to be Demolished	Proposed Land Uses
Residential/Apartments	20,319 sf (44 du)	202,500 sf (210 du)
Hotel	-	58,500 sf
Retail	-	3,500 sf
Restaurant	-	9,100 sf
Fitness Center	-	2,500 sf
Pool/Deck/Spa	-	4,800 sf
Open Space/Amenities	-	18,500 sf
Enclosed Parking	-	89,200 sf
Unenclosed Parking	28,000 sf	100,500 sf

Notes:
du = dwelling units, sf = square feet
Source: as documented in Attachment 2, and confirmed by CARB staff.

Construction is proposed to begin as early as 2018 and conclude in 2020. The proposed project was assumed to become operational as early as 2021.

The Applicant is seeking Leadership in Energy and Environmental Design (LEED) Silver certification for energy efficiency for the proposed project, and would install a minimum of 30 kilowatt (kW) photovoltaic (PV) system, which would generate approximately 1.7 percent of the project's annual electrical demand on-site.

In addition, the project would be located within a 0.25 mile walking distance to multimodal transportation choices, including the existing Metro Red Line (Hollywood and Vine Station) and bus lines. The project would provide short- and long-term bicycle parking and showers for bicycle commuters to facilitate "last mile" connectivity to transit options. Additionally, the project would provide electric vehicle charging stations and preferential parking for alternative fueled vehicles. A transportation demand management (TDM) program will be implemented to reduce the project's single

occupant vehicles trips and increase the trips arriving via alternative modes of transportation (e.g., walking, bicycle, carpool, vanpool, and transit). The TDM program would include design features, transportation services, education, and incentives intended to reduce the amount of single occupant vehicles during commuter peak hours.

VI. Technical Review and Assessment

Environmental Science Associates, on behalf of the Applicant, prepared a GHG emissions assessment for the proposed project to demonstrate that the requirements of AB 900 can be met. A full copy of this proposal can be found in Attachment 2.

The Applicant relied upon a variety of sources for activity data and emission factors to quantify GHG emissions. This CARB staff evaluation is focused on reviewing the data sources, emission factors, emission calculations, and assumptions used for the application, and determining whether these sources and assumptions are reasonable.

The Applicant relied upon Version 2016.3.1 of the California Emissions Estimator Model (CalEEMod), a widely-used emissions quantification tool developed in coordination with local air districts to quantify criteria pollutant and GHG emissions from land use development projects in California. CalEEMod uses widely-accepted sources for emission estimates combined with appropriate default data that can be used if site-specific information is not available. CalEEMod is populated with data from the United States Environmental Protection Agency AP-42 emission factors, CARB's on-road and off-road equipment emission models such as the Emission Factor 2014 model (EMFAC2014), and the Off-road Emissions Inventory Program model (OFFROAD). The Applicant used the latest CalEEMod version including correction factors to account for compliance with the 2016 Title 24 Building Standards Code, in combination with project-specific data and CARB's EMFAC 2014 mobile-source emission factors, to calculate GHG emissions from construction and operational emissions.

VII. Project Construction Emissions

Construction-related GHG emissions, including demolition-related emissions, are one-time, direct emissions and would occur over an approximately two to three-year construction period. The Applicant estimated GHG emissions associated with project construction by using the CalEEMod tool. With some exceptions, the Applicant used CalEEMod default settings to generate construction-related GHG emissions. The Applicant estimates a total of 2,245 metric tons carbon dioxide equivalent (MT CO_2e) over the project construction period, as shown in Table 1. Construction-related GHG emissions reflect the types of equipment expected and the number of hours of operation

anticipated over the construction schedule. This includes heavy-duty equipment, such as refuse hauling trucks, excavators, cranes, and conventional work vehicles.

CARB staff concluded that the methodology and estimated GHG emissions provided by the Applicant for construction are appropriate.

VIII. Baseline Operational Emissions

Operational emissions from land uses at the existing project site that would be demolished and removed as part of the project represent baseline conditions. Operational emissions in year 2015 serves as the baseline for purposes of this analysis, which represents existing conditions at the time the Notice of Preparation was issued for the project. GHG emissions were quantified for mobile, electricity, natural gas, area, solid waste, water, and wastewater-related sources. The application states that GHG emissions associated with existing conditions in 2015 are estimated as 626 MT CO_2e.

CARB staff evaluated the Applicant's GHG emission estimations, demand factors, and assumptions used in the Applicant's baseline calculations, summarized in Table 2 above. CARB staff concluded that the methodology and estimated baseline GHG emissions provided by the Applicant are appropriate.

IX. Proposed Project Operational Emissions

Operational GHG emission sources from the proposed project include mobile, electricity, natural gas, area, stationary, solid waste, water, and wastewater sources. Operational GHG emissions from the proposed project were assumed to begin in 2021.

The proposed project is seeking LEED Silver certification for energy efficiency and would include an on-site solar PV system with minimum 30 kW of renewable electricity generation capacity.

The Applicant used GHG emission factors for electricity from Los Angeles Department of Water and Power, that will change over time due to the California Renewable Portfolio Standard (RPS), a program designed to require 33 percent of grid electricity to come from renewable sources by 2020, and 50 percent renewable sources by 2030. Additionally, mobile-source emission factors used were based on the CARB EMFAC2014 on-road inventory. Declining mobile-source emission factors were used to estimate GHG emissions from vehicles over the project's lifetime, which reflect additional improvements in fleet fuel economy due to CARB's Advanced Clean Cars regulations, and were not reflected in CalEEMod.

CalEEMod default emission factors and calculation methods were also used to estimate GHG emissions from natural gas, solid waste disposal, water consumption, and area sources. The Applicant did not use CalEEMod to estimate stationary GHG emission sources (emergency generators). Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines). Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

The Applicant's assumptions and inputs are reasonably conservative, and represent an upper-bound for the net increase in GHG emissions that could occur. CARB staff evaluated the proposed project's emission calculations, demand factors, and assumptions used to estimate operational GHG emissions and concluded that the methodology and estimated operational GHG emissions provided by the Applicant are appropriate.

Based on the Applicant's proposal, annual project operational emissions would exceed baseline throughout the lifetime of the project, as summarized in Table 2.

X. Method to Offset Emissions

Under the GHG quantification methodology used by the Applicant, the proposed project would result in a one-time net GHG emissions increase of 2,245 MT CO2e during project construction, and an estimated net increase of 4,405 MT CO2e during the first year of full project operation (2021).

Operational emissions would be on-going for the duration of the project life (defined as 30 years), and would be expected to decline over the life of the project as emission factors decline associated with adoption of lower-GHG-emitting vehicle technologies and renewable sources of electricity. The Applicant has agreed to meet the requirement set forth in California Public Resources Code section 21183, subdivision (c) to demonstrate that the proposed project would result in no net additional GHG emissions through the purchase of voluntary carbon credits sufficient to offset all projected additional GHG emissions, as detailed in Attachment 2. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within South Coast Air Quality Management District jurisdiction; (4) off-site within the State; and (5) off-site out of State, following direction provided in South Coast Air Quality Management District's Governing Board Agenda Item 31, December 5, 2008, and consistent with policy recommendations included in CARB's Proposed 2017 Climate Change Scoping Plan Update. The Applicant will purchase voluntary carbon credits for the net increase in

construction and operational emissions prior to issuance of any Certificate of Occupancy for the project. The commitments to enter into contracts to offset net additional GHG emissions will be incorporated as condition of project approval, which represents a binding and enforceable agreement between the Applicant and the lead agency, the city of Los Angeles. The Applicant has agreed to submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office as evidence that this condition has been met.

XI. Conclusions and Recommendations

Based on an evaluation of the documentation provided by the Applicant and its commitment to purchase voluntary carbon credits, CARB staff concludes that the proposed project would not result in any net additional GHG emissions relative to the baseline.

ATTACHMENT 2

Greenhouse Gas Emissions Methodology Documentation for Environmental Leadership Development Project Application

6220 West Yucca Street Project

(Originally Submitted April 10, 2017 and Revised June 12, 2017)

GREENHOUSE GAS EMISSIONS METHODOLOGY AND DOCUMENTATION FOR THE 6220 WEST YUCCA PROJECT

Application for CEQA Streamlining Under the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.)

Prepared for
Champion Real Estate Company
11620 Wilshire Boulevard
Suite 1150
Los Angeles, CA 90028

June 2017

ESA

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1.0
Executive Summary

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the Yucca Mixed-Use project ("the project") and to demonstrate that the project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act ("the Act") (Public Resources Code Section 21178 et seq.), also referred to as Assembly Bill (AB) 900. In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. In 2016, Senate Bill (SB) 734 was signed, which extend the authority of the Governor to certify a project to January 1, 2018 and provides that the certification expires and is no longer valid if the lead agency fails to approve a certified project before January 1, 2019. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c).

The project is located at 6220 West Yucca Street in the Hollywood community of the City of Los Angeles. The approximately 1.16-acre project site occupies a parcel on Yucca Street ("the project site"). The property currently contains two single-family residences (one single-family residence operates as a multi-family duplex) and three, two-story apartment buildings (for a total of one single-family and 43 multi-family residences) and associated carports and paved surface parking areas. The existing uses would be demolished and removed from the site.

The proposed mix of uses would be developed within two buildings: Building 1 with a mix of residential, hotel and commercial/restaurant uses; and Building 2 with only residential uses. Each building would provide parking for its proposed uses. The total development would include 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses. Parking for Building 1 would be provided within a six-level parking structure housed within the podium structure of Building 1 and a two-level parking structure housed within Building 2. The project would also provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16. Construction of the project would be completed over approximately two years.

Under the Baseline Condition, the site generates approximately 625 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year. This excludes any one-time construction GHG emissions that were generated when the existing uses and related infrastructure were originally built. Construction of the project would generate one-time GHG emissions of approximately 1,466 $MTCO_2e$, during the first year, and 779 $MTCO_2e$ during the second year. At project buildout, emissions of approximately 5,031 $MTCO_2e$ would be generated during the first full year of operation. Compared to the Baseline Condition, the project's operational GHG emissions represent a net increase in GHG emissions from the site of approximately 4,405 $MTCO_2e$ during the first full year of operation. The net project operational GHG emissions would decline in future years primarily as a result of vehicle fleet turnover and as utilities provide a greater percentage of electricity from renewable sources. However, the project will obtain GHG offsets that would allow the project to have no net increase in GHG emissions. Future year emissions would decline as a greater percentage of motor vehicles meet more stringent emissions standards, including the Pavley Phase I and Phase II emissions standards, and the a greater percentage of electricity is provided by renewable sources in accordance with the Renewables Portfolio Standard, which requires 50 percent renewable electricity by 2030. As a result, the project would generate decreased GHG emissions in future years and would require decreased offsets to achieve no net increase in GHG emissions.

Based on this assessment, the project would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). Therefore, the project would meet the GHG emissions requirements for streamlined environmental review under CEQA.

2.0
Introduction

2.1 Purpose

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the project and to demonstrate that the project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act ("the Act") (Public Resources Code Section 21178 et seq.). This assessment describes the methodology used to estimate the GHG emissions from baseline and project conditions, provides an estimate of the net change in GHG emissions for the project as compared to baseline conditions, and describes the methodology used to quantify GHG emission reductions from project design features and mitigation measures. The following baseline and project-related emission sources have been evaluated:

- Construction Activities – Fossil fueled on- and off-road vehicles and equipment needed for demolition, mass and fine grading, building construction, paving, and architectural coating;

- Direct Emission Sources – Consumption of natural gas on-site for cooking, space heating and water heating, combustion of fossil fuels for lawn care and maintenance activities, and motor vehicles including employee transportation; and

- Indirect Emission Sources – Off-site electricity generation, wastewater treatment and water conveyance, and solid waste disposal.

2.2 Site Location, Existing Uses, and Project Description

The project is located at 6220 West Yucca Street in the Hollywood community of the City of Los Angeles approximately five miles northwest of Downtown Los Angeles. The 1.16-acre project site occupies a parcel on Yucca Street. The project site is bounded by Yucca Street, the Argyle Hotel project construction site, and 3-story residential lofts to the north; North Vista Del Mar Avenue and 1- and 2-story single-family residences and duplexes to the east; vacant land (former Little Country Church of Hollywood) and 1- and 2-story single-family residences and duplexes followed by a 5-story mixed-use residential and commercial development to the south; and Argyle Avenue and commercial uses to the west. The property currently contains two single-family residences (one single-family residence operates as a multi-family duplex) and three, two-story apartment buildings (for a total of one single-family and 43 multi-family residences) and

associated carports and paved surface parking areas. The existing uses would be demolished and removed from the site.

The project would consist of two buildings over a single podium structure: one, 20-story high-rise tower as measured from Yucca Street (Building 1) and one, 4-story building along Yucca Street and Vista Del Mar Avenue (Building 2). Building 1, located on the corner of Yucca Street and Argyle Avenue, would include a mix of residential, hotel and commercial/restaurant uses while the adjoining Building 2 would contain residential uses. The total development would include 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses. Parking would be provided on-site within the six-level parking structure housed within the podium structure of Building 1 and the two-level parking structure housed within Building 2. The project would also provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16

Construction of the project would be completed over an approximately two-year period. The project would export approximately 120,000 cubic yards of soil and generate approximately 5,000 cubic yards of demolition debris (asphalt, interior and exterior building demolition, and general construction debris).

The project site and surrounding uses are shown in **Figure 1**. The site plan for the project is provide in **Figure 2**.

2.3 Jobs and Economic Improvement Through Environmental Leadership Act

In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). For purposes of California Public Resources Code Section 21183(c) the following process applies:

1. The applicant shall submit electronically to AB900ARBsubmittals@arb.ca.gov a proposed methodology for quantifying the project's net additional GHG emissions. The CARB will review and comment on the methodology, at its discretion, within 30 days of submission.

2. At the same time, the applicant shall submit to AB900ARBsubmittals@arb.ca.gov documentation that the project does not result in any net additional GHG emissions. The documentation must at least quantify:

a. Both direct and indirect GHG emissions associated with the project's construction and operation, including emissions from the project's projected energy use and transportation related emissions; and

b. The net emissions of the project after accounting for any mitigation measures that will be monitored and enforced consistent with Public Resources Code section 21183(d).

3. Within 60 days of receiving the documentation (in 2. above), the CARB will determine whether the condition specified in Public Resources section 21183(c) has been met or, if more time is needed, notify the applicant of the expected completion date.

4. The CARB will determine and report to the Governor in writing that a project does not result in any net additional emissions of greenhouse gases if the project demonstrates through a combination of project design features, compliance with (or exceeding minimum requirements of) existing regulations, and mitigation that it would result in zero additional greenhouse gas emissions.



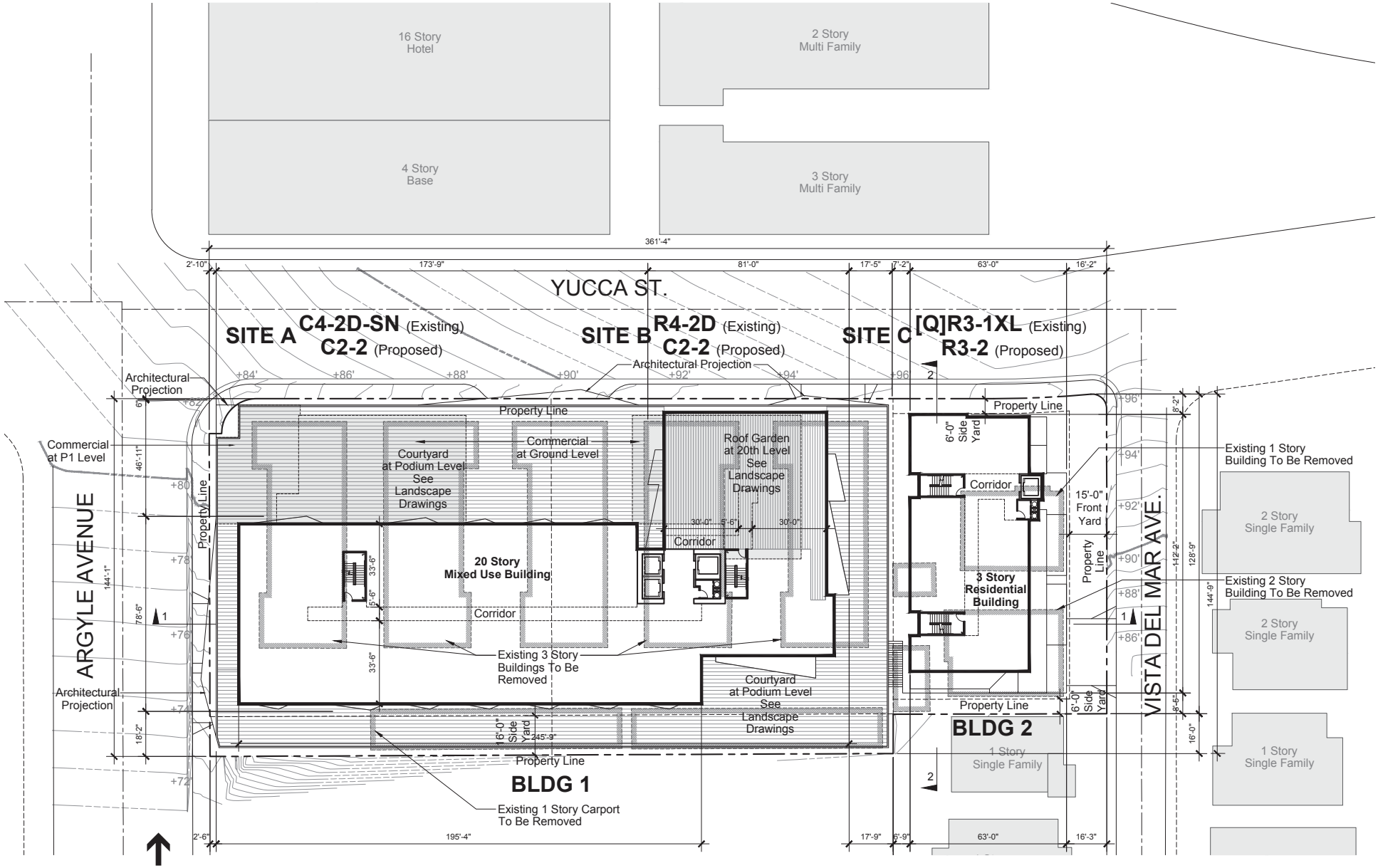
SOURCE: Google Earth, 2014-04-23 (Aerial)

6220 West Yucca Project

Figure 1

Aerial Photograph of Project Site and Vicinity

ESA PCR



SOURCE: Togawa Smith Martin, Inc., 2017

6220 West Yucca Project

Figure 2
Proposed Site Plan

ESA PCR

3.0
Greenhouse Gas Emissions

3.1 Global Climate Change and Greenhouse Gases

The natural process through which heat is retained in the troposphere[1] is called the "greenhouse effect." The greenhouse effect traps heat in the troposphere through a three-fold process as follows: (1) short wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave radiation re-emitted by the Earth; and (3) GHGs in the atmosphere absorbing or trapping the long-wave radiation and re-emitting it back towards the Earth and into space. This third process is the focus of global climate change actions.

The most commonly emitted GHG from anthropogenic (i.e., human) activities is carbon dioxide (CO_2). 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 (CO_2e). Mass emissions are calculated by converting pollutant-specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value.[2] 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 are currently in use by the State of California for official GHG emission inventory purposes. By applying the GWP ratios, project-related CO_2e emissions can be tabulated in metric tons of CO_2e ($MTCO_2e$) per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. The CO_2e 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.

- Carbon Dioxide (CO_2): CO_2 is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO_2 is the reference gas (GWP of 1) for determining the GWPs of other GHGs.

[1] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[2] GWPs and associated CO2e values were developed by 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 California Air Resources Board (CARB) has begun reporting GHG emission inventories for California, starting with the 2012 inventory, using the GWP values from the IPCC AR4.

- Methane (CH_4): CH_4 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 CH_4 is 21 in the IPCC SAR and 25 in the IPCC AR4.

- Nitrous Oxide (N_2O): N_2O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary 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.

- 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 GWPs of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23 in the IPCC SAR and 124 to 14,800 in the IPCC AR4.

- 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.

- 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.

The Climate Registry (TCR) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities.[3] No specific protocols are available for land use development projects; however, the General Reporting Protocol has been adapted to address the land use development GHG emissions in this assessment. The information provided in this assessment is generally consistent with the General Reporting Protocol minimum reporting requirements. The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

- Scope 1: Direct GHG emissions from human activity (e.g., stationary combustion of fuels, mobile combustion of fuels in transportation).

- Scope 2: Indirect GHG emissions associated with activities of the reporting entity but occur at sources controlled by another entity (e.g., purchased electricity or purchased steam).

- Scope 3: Indirect emissions associated with other emissions sources, such as employee commute and business travel and waste disposal.

According to the California Air Resources Board (CARB), the consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities

[3] The Climate Registry, General Reporting Protocol, Version 2.1, (2016).

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.[4] 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 consumption, water usage and construction activities."[5] Therefore, direct and indirect emissions are considered in this assessment.

3.2 Baseline Operational Emissions

3.2.1 Description of Baseline Condition

The project site encompasses approximately 1.16 acres of land area currently occupied by two single-family residences and three, two-story apartment buildings and associated carports, as shown in Figure 1. The majority of the buildings were originally constructed between 1915 and the 1950s and some repair work was completed in the 1970s. The project would demolish and removed the existing structures and associated infrastructure from the project site and the existing uses would be vacated prior to construction and would cease to operate. Therefore, the GHG emissions from the existing site uses would not occur contemporaneously with either project construction emissions or project operational emissions. The square footage for these existing land uses are provided in **Table 1**.

TABLE 1
BASELINE CONDITION FLOOR AREA

Land Use	Number of Units	Square Feet (sqft)
Multi-Family Residential	43	18,952
Single-Family Residential	1	1,367
Parking Lot/Hardscape Areas	—	28,000

SOURCE: Champion Real Estate Company / Togawa Smith Martin, Inc., 2016.

4 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).

5 Office of Planning and Research, Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review, (2008) 5.

3.2.2 GHG Emission Sources and Calculation Methodology

Construction

The project site is currently built-out. Construction of the buildings and associated parking areas and infrastructure resulted in one-time GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O from heavy-duty construction equipment, haul trucks, and worker vehicles. However, sufficient detail is not available with respect to the construction schedule, equipment usage, and number of haul trips to provide a quantitative construction GHG emissions assessment for the Baseline Condition. Therefore, construction-related GHG emissions are not included for the Baseline Condition. This is a conservative approach since, by excluding the Baseline Condition construction-related GHG emissions, the project would need to provide slightly greater GHG reductions in order to meet the requirements of AB 900 of no net additional GHG emissions.

Operational Energy – Electricity

The generation of electricity in California is achieved through the combustion of fossil fuels, primarily natural gas, using steam boilers, internal combustion engines, and combustion turbines. A portion of the electricity in California is imported from outside the state and is derived from the combustion of coal and other non-gaseous fossil fuels. The combustion of fossil fuels to produce electricity results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. These emissions occur due to the electrical demand of the existing land uses that currently operate on the project site. The electricity generation occurs off-site; therefore, electricity use results in GHG emissions that are considered to be indirect.

Emissions of GHGs associated with the Baseline Condition energy demand are based on the size of the hospital, administration, and supporting land uses, the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions in units of $MTCO_2e$ are generally calculated as follows:

Electricity:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_E \times EF_E \times GWP)_i \right) \div 2204.62 \quad \textbf{[Equation 1]}$$

Where:
- Units = Number of land use units (same land use type) [dwelling unit (DU) or 1000 sqft]
- D_E = Electrical demand factor [megawatt-hour (MWh)/DU or 1000 sqft/year]
- EF_E = GHG emission factor [pounds per megawatt-hour (MWh)]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 2204.62 = Conversion factor [pounds/MT]
- i = Summation index

Electrical demand is based on data from the California Energy Commission (CEC) *California Commercial End Use Survey* (CEUS), which lists energy demand by building type,[6] as incorporated into the California Emissions Estimator Model (CalEEMod).[7] The data from the CEUS is from 2002. Since 1978, the CEC has established building energy efficiency standards, which are updated periodically. CalEEMod (version 2016.3.1) incorporates correction factors to account for the 2013 Title 24 Building Energy Efficiency Standards. The existing buildings on the project site were built in the 1900s (as early as 1915 through the 1950s with some repair work in the 1970s). Thus, the building electricity usage rates are adjusted to account for the prior 2001 Title 24 Building Energy Efficiency Standards.[8] This is considered a conservative adjustment because the existing buildings were built prior to implementation of the 2001 Standards and thus would have been built to a less stringent energy standard and data is not readily available to adjust usage factors prior to the 2001 Standards. Parking lot and hardscape areas result in electricity usage due to lighting needs and were included as sources.

The Los Angeles Department of Water and Power (LADWP) provides electric service to the project site. Emission factors for GHGs due to electrical generation to serve the electrical demands of the Baseline Condition were obtained from the LADWP 2016 Draft Power Integrated Resource Plan, which provides a CO_2 intensity of 1,132 pounds of CO_2 per MWh in 2015 (the most recent year for which data is provided).[9] LADWP has achieved average renewable energy sales of approximately 20 percent for the 2010 through 2013 period.[10] Emission factors for CH_4 and N_2O were obtained from CalEEMod.[11]

The estimated annual emissions from electrical demand from the Baseline Condition are provided in **Table 2**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 2
BASELINE CONDITION ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
Existing Site						
Multi-Family	18.95	157.69	1,132	0.029	0.0062	81.1
Single-Family	1.37	7.28	1,132	0.029	0.0062	3.7
Parking/Hardscape	28.00	24.64	1,132	0.029	0.0062	12.7
Subtotal						**98**

6 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017

7 See: http://www.caleemod.com.

8 California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

9 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

10 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-1.

11 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

NOTES:

[a] California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors are extrapolated based on the technical source documentation.

[b] Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Energy – Natural Gas

The existing land uses under the Baseline Condition utilize natural gas primarily for heating needs. Natural gas is also used for cooking. The combustion of natural gas results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The combustion of natural gas occurs on-site; therefore, the associated GHG emissions are considered to be direct.

The emissions of GHGs associated with natural gas combustion under the Baseline Condition are based on the size of the existing land uses, the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu), the GHG emission factors for natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions in units of $MTCO_2e$ are generally calculated as follows:

Natural Gas:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_{NG} \times EF_{NG} \times GWP)_i \right) \div 2204.62 \quad \textbf{[Equation 2]}$$

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- D_{NG} = Natural gas combustion factor [MMBtu/DU or 1000 sqft/year]
- EF_{NG} = GHG emission factor [pounds/MMBtu]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 2204.62 = Conversion factor [pounds/MT]
- i = Summation index

Similar to the electricity calculations, natural gas demand is based on data from the CEUS, which lists energy demand by building type, as incorporated into CalEEMod. As discussed previously, the existing buildings on the project site were built in the 1900s (as early as 1918 through the 1950s with some repair work in the 1970s). Thus, the building natural gas usage rates are adjusted to account for the prior 2001 Title 24 Building Energy Efficiency Standards. This is considered a conservative adjustment because the existing buildings were built prior to implementation of the 2001 Standards and thus would have been built to a less stringent energy standard and data is not readily available to adjust usage factors prior to the 2001 Standards. Parking lot and hardscape areas do not result in natural gas combustion and were excluded as sources.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Baseline Condition were obtained from CalEEMod, which provides statewide emission factors.

The estimated annual emissions from natural gas combustion from the Baseline Condition are provided in **Table 3**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 3
BASELINE CONDITION NATURAL GAS GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_{NG} (MMBtu/year) [a]	Emission Factor, EF_{NG} (pounds/MMBtu)			Annual GHG Emissions ($MTCO_2e$/year) [c]
			CO_2 [b]	CH_4 [b]	N_2O [b]	
Existing Site						
Multi-Family	18.95	706.30	117.65	0.0023	0.0022	37.9
Single-Family	1.37	36.50	117.65	0.0023	0.0022	2.0
Subtotal						**40**

NOTES:

[a] California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors are extrapolated based on the technical source documentation.

[b] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Mobile

Mobile source emission calculations associated with the Baseline Condition are calculated using vehicle miles traveled (VMT) from the traffic analysis prepared for the project.[12] The estimated VMT in the traffic analysis is based on average trip lengths for each land use were determined using CalEEMod. The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work (H-W), home-shop (H-S), and home-other (H-O). Commercial trips include commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type and accounting for applicable reductions from proximity to transit and other VMT-reducing land use characteristics.

The analysis is also based on the CARB on-road vehicle emissions factor model (EMFAC). EMFAC2014 "represents ARB's current understanding of motor vehicle travel activities and their

[12] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017.

associated emission levels."[13] Emissions of GHGs associated with mobile sources under the Baseline Condition are based on the average daily trip rate, trip distance, the GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. The types of vehicles that visit the project site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the Baseline Condition was conducted using the vehicle fleet mix for the South Coast Air Basin for all vehicle types as provided in EMFAC2014.

Emission factors were obtained from EMFAC2014, which was run in the emissions mode (also referred to as the "Burden" mode) and used to generate South Coast Air Basin-specific vehicle fleet emission factors in units of grams or metric tons per mile, which is the same methodology used by CalEEMod. Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing project site. The emissions were calculated using a representative motor vehicle fleet mix for year 2015 as provided in EMFAC2014. Mobile source emissions are the product of the CalEEMod estimated VMT and the EMFAC2014 emission factors. The estimated annual emissions from mobile sources from the Baseline Condition are provided in **Table 4**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 4
BASELINE CONDITION MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Land Use	Fleet Mix	Estimated Annual VMT [a]	Annual GHG Emissions ($MTCO_2e$/year)
Existing Site			
Multi- and Single-Family	South Coast Air Basin Fleet Mix (Existing Conditions)	939,145	454
Subtotal			**454**

NOTES:

[a] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017. Based on the estimated daily VMT multiplied by 365 days per year.

SOURCE: ESA 2017.

Operational Solid Waste

The existing land uses under the Baseline Condition generate municipal solid waste (MSW) from day-to-day operational activities, which generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, paper, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills

[13] California Air Resources Board, Mobile Source Emissions Inventory, http://www.arb.ca.gov/msei/categories.htm#emfac2014. Accessed January 2017.

results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal under the Baseline Condition are calculated using CalEEMod. The emissions are based on the size of the existing land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ are generally calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_{MSW} \times EF_{MSW} \times GWP)_i \right) \div 1.1023$$

[Equation 3]

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- D_{MSW} = Waste disposal rate [tons/DU or 1000 sqft/year]
- EF_{MSW} = GHG emission factor [tons/ton waste]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 1.1023 = Conversion factor [tons/MT]
- i = Summation index

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. Annual waste disposal rates used in CalEEMod are based on data from the California Department of Resources Recycling and Recovery (CalRecycle).[14] The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of approximately 76 percent, according to the most recent data available.[15] The GHG emission factors, particularly for CH_4, 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), which are statewide averages, are used in this assessment.

The estimated annual emissions from solid waste disposal from the Baseline Condition are provided in **Table 5**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 5
BASELINE CONDITION SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use	Waste Diversion Rate [a]	Waste Disposal after Diversion, D_{MSW} (tons/year) [b]	Annual GHG Emissions ($MTCO_2e$/year) [c]
Existing Site			
Multi-Family	76%	23.03	11.58

[14] CalRecycle, Estimated Solid Waste Generation Rates. Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed January 2017.
[15] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

Single-Family	76%	0.54	0.27
Subtotal			**12**

NOTES:

[a] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

[b] Waste generation factors for the land uses are from the CalRecycle (formerly Integrated Waste Management Board), Estimated Solid Waste Generation Rates, Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed October 2015.

[c] Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the Baseline Condition requires energy to supply, distribute and treat. The combustion of fossil fuels to produce electricity results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The electricity generation occurs off-site; therefore, the electricity use from water and wastewater results in GHG emissions that are considered to be indirect. Wastewater also results in emissions of GHGs from wastewater treatment systems (e.g., septic, aerobic, or lagoons) as well as from solids that are digested either through an anaerobic digester or with co-generation from combustion of digester gas.

The emissions of GHGs associated with water demand and wastewater generation under the Baseline Condition are calculated using CalEEMod. The emissions are based on the size of the existing land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_W \times (EI_W \div 1000) \times EF_W \times GWP)_i \right) \div 2204.62$$

[Equation 4]

Where:

Units	=	Number of land use units (same land use type) [DU or 1000 sqft]
D_W	=	Water demand factor [million gallons (Mgal)/DU or 1000 sqft/year]
EI_W	=	Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
1000	=	Conversion factor [kWh/MWh]
EF_W	=	GHG emission factor [pounds/MWh]
GWP	=	Global warming potential [CO_2 = 1, CH_4 = 25, N_2O = 298]
2204.62	=	Conversion factor [pounds/MT]
i	=	Summation index

The estimated water demand is based on usage factors from the City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR) report.[16] Parking lot and hardscape areas typically result outdoor water usage for cleaning purposes and were included as sources.

The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report Refining Estimates of Water-Related Energy Use in California, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.[17] The same electricity GHG emissions factors discussed under the **Operational Energy – Electricity** subheading are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the California Emissions Estimator Model User's Guide, Appendix A.[18] As stated in the User's Guide, the GHGs emitted from each type of wastewater treatment are based on the CARB's Local Government Operations Protocol (LGOP),[19] which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.[20] The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

The estimated annual emissions from water and wastewater from the Baseline Condition are provided in **Table 6**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 6
BASELINE CONDITION WATER AND WASTEWATER GAS GREENHOUSE GAS EMISSIONS

Land Use	Water Demand, D_W (gal/year) [a]	Electricity Intensity Factor, EI_W (kWh/Mgal) [b]				Annual GHG Emissions ($MTCO_2e$/year) [c]
		Supply	Treat	Distribute	Treatment	
Existing Site						
Multi-Family	2,336,730	9,727	111	1,272	1,911	17.9
Single-Family	81,030	9,727	111	1,272	1,911	0.6
Parking/Hardscape	245,280	9,727	111	1,272	1,911	1.4
Subtotal						**20**

16 City of Los Angeles, Bureau of Engineering, Sewer Capacity Availability Request (SCAR), January 2017.
17 California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).
18 California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, (2016).
19 California Air Resources Board, Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008).
20 United States Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008).

NOTES:

[a] City of Los Angeles, Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Provided in the L.A. CEQA Thresholds Guide, (2006) M.2-22-M.2-26. Water demand rates are derived based on the wastewater generation rates.

[b] California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Area and Stationary

Area sources of GHG emissions resulting from the operation of the existing land uses at the project site under the Baseline Condition include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The emissions occur on-site and are a direct result of activity from the existing land uses; therefore, the GHG emissions are considered to be direct. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers.

The emissions of GHGs associated with operational area sources under the Baseline Condition are calculated using CalEEMod. The emissions for landscaping equipment are based on the size of the hospital, administrative, and support land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of $MTCO_2e$ are generally calculated in CalEEMod as follows:

Landscaping Equipment:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times EF_{LE} \times A_{LE} \times GWP)_i \right) \div 10^6 \qquad \textbf{[Equation 5]}$$

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- EF_{LE} = GHG emission factor [grams (g)/DU or 1000 sqft/day]
- A_{LE} = Landscaping equipment operating days per year [day/year]
- GWP = Global warming potential [CO_2 = 1, CH_4 = 25, N_2O = 298]
- 10^6 = Conversion factor [g/MT]
- i = Summation index

CalEEMod uses landscaping equipment GHG emission factors from the CARB off-road equipment emissions factor model (OFFROAD) and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.[21] CalEEMod estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

[21] California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003),

The estimated annual emissions from area and stationary sources under the Baseline Condition are provided in **Table 7**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 7
BASELINE CONDITION AREA AND STATIONARY SOURCE GREENHOUSE GAS EMISSIONS

Land Use	Source	Annual GHG Emissions ($MTCO_2e$/year) [c]
Existing Site		
Multi- and Single-Family	Landscaping Equipment	2
Subtotal		**2**

SOURCE: ESA 2017.

Summary of Baseline Condition GHG Emissions

A summary of the GHG emissions under the Baseline Condition is provided in **Table 8**.

TABLE 8
BASELINE CONDITION SUMMARY OF ANNUAL GREENHOUSE GAS EMISSIONS

Source	Annual GHG Emissions ($MTCO_2e$/year) [a]
Existing Site	
Electricity	98
Natural Gas	40
Mobile	454
Solid Waste	12
Water and Wastewater	20
Area and Stationary	2
Total	**626**

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations.

SOURCE: ESA 2017.

http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_ act.pdf. Accessed January 2017.

3.3 Project Construction and Operational Emissions

3.3.1 Description of Project Condition

The project would demolish all existing buildings and surface parking/hardscape on the site (approximately 20,319 square feet of building floor area and approximately 28,000 square feet of surface parking/hardscape). The project would construct approximately 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses.

For the purposes of this assessment, in order to provide a comparison of the project's GHG emissions with the Baseline Condition, and to assess future GHG emissions trends of the project, emissions of GHGs are estimated for the project's construction and operational lifetime. Within the project's operational lifetime, there are several key milestone years. The milestone years correspond to the following circumstances:

- 2021: Expected initial operational year (electric utilities, including LADWP, are expected to supply a minimum of 33 percent of electricity via renewable sources during this year);
- 2024: The year in which electric utilities, including LADWP, are expected to supply a minimum of 40 percent of electricity via renewable sources;
- 2025: The year in which the model year 2017-2025 light-duty vehicle GHG emissions and Corporate Average Fuel Economy standards are to be fully implemented for new vehicles;
- 2027: The year in which electric utilities, including LADWP, are expected to supply a minimum of 45 percent of electricity via renewable sources;
- 2030: The year in which electric utilities, including LADWP, are expected to supply a minimum of 50 percent of electricity via renewable sources.

3.3.2 GHG Emission Sources and Calculation Methodology

Construction

Construction of the project would result in one-time GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O from heavy-duty construction equipment, haul trucks, and worker vehicles. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and on-road emissions factors. The emissions are estimated using the CalEEMod tool, which incorporates the CARB off-road equipment emissions factor model (OFFROAD) and on-road vehicle emissions factor model (EMFAC). The output values used in this analysis are adjusted to be project-specific based on equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for

each construction year. The CalEEMod tool provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Since a construction contractor(s) has not yet been retained for the project, specific equipment specifications are not yet known. Therefore, recommended default equipment and vehicle horsepower ratings and load factors provided in CalEEMod are used in this assessment. This assessment also assumes equipment would operate for 8 hours during a workday.

Construction of the project would occur over a number of phases and include activities such as demolition, debris and soil hauling, building construction, architectural coating, and paving. Information regarding the activities that would occur during these phases is provided below:

- **Demolition:** This first phase is anticipated to begin as early as 2018 and last for just under one month (approximately three weeks). If construction commences at a later date, this assessment would be considered conservative as future year emission factors tend to decline in future years. Construction equipment would include an excavator, dozers concrete saw, tractors/loaders/backhoes, haul trucks, and other construction equipment.

- **Site Preparation:** This phase is anticipated to begin after the demolition phase and last for approximately one to two weeks. Construction equipment would include tractors/loaders/backhoes and rubber tired dozers.

- **Grading and Excavation:** This phase is anticipated to begin after the site preparation phase and last for approximately four months. Construction equipment would include a drill rig, excavators, dozer, loader, scraper, tractors/loaders/backhoes, haul trucks, and other equipment. Up to approximately 120,000 cubic yards of soil, based on conservative measurements, would be excavated and exported.

- **Building Construction:** This phase is anticipated to begin after grading and last for approximately 17 months. During this phase, the parking structure and residential and commercial buildings would be constructed. Construction equipment would include forklifts, crane, tractors/loaders/backhoes, generator, welders, concrete pump, concrete trucks, and other construction equipment.

- **Paving:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, paving materials would be poured during construction of the buildings and related features and the surfaces would be paved. Construction equipment would include concrete trucks, paving equipment, and other equipment.

- **Architectural Coating:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, the interior and exterior coating would be applied to the residential and commercial buildings. Specific coating equipment would include an air compressor.

The emissions of GHGs associated with construction of the project were calculated for each year of construction activity. Detailed emissions calculations are provided in **Appendix B**. Results of the GHG emissions calculations are presented in **Table 9**, *Estimated Unmitigated Project Construction Greenhouse Gas Emissions*. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to them when assessing all of the long-term GHG emissions associated with a project.

TABLE 9
ESTIMATED UNMITIGATED PROJECT CONSTRUCTION GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions [a]
Construction Year 1	1,466
Construction Year 2	779

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in **Appendix B**.

SOURCE: ESA 2017.

Operational Energy – Electricity

Electricity-related emissions of GHGs associated with operation of the project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions are calculated using the general formula shown previously as **Equation 1**. For residential land uses, emission factors are specified in units of dwelling units (DU). For nonresidential land uses, emission factors are specified in units of 1,000 square feet. This assessment also includes electricity-related GHG emissions from the proposed enclosed parking structure, which would include elevators, lighting, and a ventilation system.

Electricity demand is based on data from the CEUS, which lists energy demand by building type.[22] However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2013 Title 24 Building Standards Code. Since the project would be required to meet the Title 24 standards in effect at the time of building permit application, this analysis incorporates an additional correction factor to account for the updated 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017. The additional Title 24 regulated energy correction factor applies a 5 percent increased energy efficiency for nonresidential land uses and a 28 percent increased efficiency for residential land uses compared to the 2013 Title 24 Building Standards Code.[23]

The project would be designed to incorporate Project Design Features (PDFs) that would reduce its energy demand with the goal of achieving or exceeding the requirements of the State of California Green Building Standards (CALGreen) Code, the City of Los Angeles Green Building Code, and the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Silver rating. The project would also include a minimum of 30

[22] California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017

[23] The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, ,http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf). Accessed January 2017.

kilowatts of photovoltaic panels on the project site,[24] which would be estimated to provide approximately 47,478 kilowatt-hours of electricity per year, based on region-specific data from the United States Department of Energy, National Renewable Energy Laboratory (NREL).[25] Therefore, electricity provided by 30 kilowatts of on-site photovoltaic panels would provide approximately 47,478 kilowatt-hours of renewable electricity per year, which would offset approximately 1.72 percent of the project's estimated annual electricity demand of 2,754,321 kilowatt-hours per year. Thus, the project would reduce its electricity demand as compared to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the "mitigation measures" section of the model or applying the appropriate reductions after modeling (i.e., reducing the annual GHG emissions from electricity demand by approximately 1.72 percent from 30 kilowatt photovoltaic panels). Green building measures that would result in quantifiable reductions in GHG emissions would include, but are not limited to the following:

Green Building Measures: The project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. Green building measures would include, but are not limited to the following:

- The project would implement a construction waste management plan to recycle and/or salvage a minimum of 50 percent of nonhazardous construction debris.
- The project would be designed to optimize energy performance and reduce building energy cost by a minimum of 5 percent for new construction compared to the Title 24 Building Energy Efficiency Standards (2016).
- The project would be designed to optimize energy performance and reduce building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent.
- The project shall provide a minimum of 30 kilowatts of photovoltaic panels on the project site, unless additional kilowatts of photovoltaic panels become feasible due to additional area being added to the project site.
- The residential units within the project shall not include the use of natural gas-fueled fireplaces.
- The project would include double-paned windows to keep heat out during summer months and keep heat inside during winter months.
- The project would include lighting controls with occupancy sensors to take advantage of available natural light.

[24] The amount of solar photovoltaic panels (30 kilowatts) is estimated based on the available physical roof space taking into account space dedicated for rooftop amenities, decks/pool areas, and space required for rooftop equipment, such as heating, ventilation, and air conditioning units.

[25] U.S. Department of Energy, National Renewable Energy Laboratory, PVWatts Calculator. Available: http://pvwatts.nrel.gov/pvwatts.php. Accessed March 2017.

- The project would reduce outdoor potable water use by a minimum of 20 percent compared to baseline water consumption. Reductions would be achieved through drought-tolerant/California native plant species selection, irrigation system efficiency, alternative water supplies (e.g., stormwater retention for use in landscaping), and/or smart irrigation systems (e.g., weather-based controls).

- The project would reduce indoor potable water use by a minimum of 20 percent compared to baseline or standard water consumption by installing water fixtures that exceed applicable standards.

- The project would provide on-site recycling areas, consistent with City of Los Angeles strategies and ordinances, with the goal of achieving 70 percent waste diversion by 2020, and 90 percent by 2025.

- To encourage carpooling and the use of electric vehicles by project residents and visitors, the Applicant shall designate a minimum of eight (8) percent on on-site parking for carpool and/or alternative-fueled vehicles and shall pre-wire, or install conduit and panel capacity for, electric vehicle charging stations for a minimum of five (5) percent of on-site parking spaces.

The LADWP provides electric service to the project site. Currently, LADWP provides 20 percent of electricity via renewable sources.[26] LADWP is required to provide an increasing percentage from renewable sources in compliance with the Renewables Portfolio Standard with 33 percent by 2020, 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. During calendar year 2015, 37 percent of the energy delivered to LADWP customers was generated from two coal-fired generating stations: the Intermountain Power Project (IPP), located in Utah, and the Navajo Generating Station (NGS), located in Arizona. These stations provide base load generation to Los Angeles; however, they emit about twice as much CO_2 as energy generated from natural gas.[27] On July 1, 2016, LADWP sold its 477 MW share in NGS to Salt River Project, three and a half years before the operating agreement and land lease expires in December 2019.[28] The reduction in LADWP's CO_2 intensity from this sale is not reflected in the 2015 CO_2 intensity factor above. LADWP continues to focus on early coal replacement options as a means to lower LADWP's CO_2 emission levels and increase renewable sources in accordance with the Renewables Portfolio Standard.

Based on data obtained from CARB staff, "[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] CO_2/MWh may be used."[29] 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

26 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-1.
27 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-8.
28 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-8.
29 California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017. The emission factor of 595 pounds CO_2/MWh is from the California LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm, based on analysis with CA-GREET model. This document is provided in **Appendix C**.

rule impact assessments."[30] Therefore, consistent with the CARB staff recommendation, a CO_2 intensity factor of 595 pounds of CO_2 per MWh was used for electricity emissions for years 2020 through 2023. Future year CO_2 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 CH_4 and N_2O were obtained from CalEEMod.[31]

The estimated annual emissions from electrical demand from the project's land uses during the opening year are provided in **Table 10**, *Project Electrical Demand Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 10
PROJECT ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
2021-2023						
Apartment [e]	202.5	758.4	595	0.029	0.0062	205.5
Hotel	58.5	594.7	595	0.029	0.0062	161.2
Retail	3.5	45.3	595	0.029	0.0062	12.3
Restaurant	9.1	394.2	595	0.029	0.0062	106.8
Fitness Center	2.5	27.6	595	0.029	0.0062	7.5
Pool/Deck/Spa	4.8	14.7	595	0.029	0.0062	4.0
Other Open Space/Amenities	18.5	46.3	595	0.029	0.0062	12.6
Enclose Parking with Elevator	89.2	555.3	595	0.029	0.0062	150.5
Unenclosed Parking with Elevator	100.5	270.3	595	0.029	0.0062	73.3
Subtotal						**734**
2024-2026						
Apartment [e]	202.5	758.4	533	0.029	0.0062	184.2
Hotel	58.5	594.7	533	0.029	0.0062	144.5
Retail	3.5	45.3	533	0.029	0.0062	11.0
Restaurant	9.1	394.2	533	0.029	0.0062	95.8
Fitness Center	2.5	27.6	533	0.029	0.0062	6.7
Pool/Deck/Spa	4.8	14.7	533	0.029	0.0062	3.6
Other Open Space/Amenities	18.5	46.3	533	0.029	0.0062	11.3
Enclose Parking with Elevator	89.2	555.3	533	0.029	0.0062	134.9
Unenclosed Parking	100.5	270.3	533	0.029	0.0062	65.7

30 California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017.
31 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
with Elevator						
Subtotal						**658**
2027-2029						
Apartment [e]	202.5	758.4	488	0.029	0.0062	168.7
Hotel	58.5	594.7	488	0.029	0.0062	132.3
Retail	3.5	45.3	488	0.029	0.0062	10.1
Restaurant	9.1	394.2	488	0.029	0.0062	87.7
Fitness Center	2.5	27.6	488	0.029	0.0062	6.1
Pool/Deck/Spa	4.8	14.7	488	0.029	0.0062	3.3
Other Open Space/Amenities	18.5	46.3	488	0.029	0.0062	10.3
Enclose Parking with Elevator	89.2	555.3	488	0.029	0.0062	123.6
Unenclosed Parking with Elevator	100.5	270.3	488	0.029	0.0062	60.1
Subtotal						**602**
2030-2050						
Apartment [e]	202.5	758.4	444	0.029	0.0062	153.6
Hotel	58.5	594.7	444	0.029	0.0062	120.4
Retail	3.5	45.3	444	0.029	0.0062	9.2
Restaurant	9.1	394.2	444	0.029	0.0062	79.8
Fitness Center	2.5	27.6	444	0.029	0.0062	5.6
Pool/Deck/Spa	4.8	14.7	444	0.029	0.0062	3.0
Other Open Space/Amenities	18.5	46.3	444	0.029	0.0062	9.4
Enclose Parking with Elevator	89.2	555.3	444	0.029	0.0062	112.5
Unenclosed Parking with Elevator	100.5	270.3	444	0.029	0.0062	54.7
Subtotal						**548**

NOTES:

[a] California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, http://www.caleemod.com/. Accessed January 2017. The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf Accessed January 2017. Demand factor accounts for a 5 percent reduction in Title 24 energy demand per PDF-GHG-1.

[b] California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

[e] For emissions modeling purposes, the electricity and associated GHG reductions from the 30 kilowatt photovoltaic panels (approximately 47,478 kilowatt-hours per year) were applied to the Apartment land use.

SOURCE: ESA 2017.

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	

Operational Energy – Natural Gas

Natural gas-related emissions of GHGs associated with operation of the project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the natural gas demand factors for the land uses, the GHG emission factors for the natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions are calculated using the general formula shown previously as **Equation 2**. For residential land uses, emission factors are specified in units of DU. For nonresidential land uses, emission factors are specified in units of 1,000 square feet.

Natural gas demand is based on data from the CEUS, which lists energy demand by building type.[32] However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2013Title 24 Building Standards Code. The 2013 Title 24 Building Standards Code electricity demand factors are obtained from CalEEMod, which already has the correction factors applied. Since the project would also be required to meet the Title 24 standards in effect at the time of building permit application, this analysis incorporates an additional correction factor to account for the amended 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017. The additional Title 24 regulated energy correction factor applies a 5 percent increased energy efficiency for nonresidential land uses and a 28 percent increased efficiency for residential land usess compared to the 2013 Title 24 Building Standards Code.[33] The project would be designed to incorporate PDFs that would reduce its energy demand with the goal of achieving or exceeding the requirements of the CALGreen Code, the City of Los Angeles Green Building Code, and the USGBC LEED Silver rating. Thus, the project would reduce its natural gas demand as comparoed to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the "mitigation measures" section of the model. A summary of the energy-efficiency PDFs is provided above in PDF-GHG-1.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the project were obtained from CalEEMod, which provides

32 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017.

33 The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, ,http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed January 2017.

statewide emission factors.34 The emissions of GHGs due to natural gas demand would be relatively steady for the years assessed.

The estimated annual emissions from natural gas combustion from the project are provided in **Table 11**, *Project Natural Gas Combustion Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 11
PROJECT NATURAL GAS COMBUSTION GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Natural Gas Demand Factor (MMBtu/unit/year) [a]	Emission Factor (pounds/MMBtu)			Annual GHG Emissions ($MTCO_2e$/year) [c]
			CO_2 [b]	CH_4 [b]	N_2O [b]	
2021-2050						
Apartment	202.5	1923.6	117.65	0.0023	0.0022	103.3
Hotel	58.5	1777.8	117.65	0.0023	0.0022	95.4
Retail	3.5	5.3	117.65	0.0023	0.0022	0.3
Restaurant	9.1	2052.2	117.65	0.0023	0.0022	110.2
Fitness Center	2.5	42.5	117.65	0.0023	0.0022	2.3
Pool/Deck/Spa	4.8	59.9	117.65	0.0023	0.0022	3.2
Other Open Space/Amenities	18.5	0	117.65	0.0023	0.0022	0
Enclose Parking with Elevator	89.2	0	117.65	0.0023	0.0022	0
Unenclosed Parking with Elevator	100.5	0	117.65	0.0023	0.0022	0
Subtotal						**315**

NOTES:

[a] California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, http://www.caleemod.com/. Accessed January 2017. The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf Accessed January 2017. Demand factor accounts for a 5 percent reduction in Title 24 energy demand per PDF-GHG-1.

[b] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Mobile

Mobile source emission calculations associated with the project are calculated using the VMT from the traffic analysis prepared for the project.[35] The estimated VMT in the traffic analysis is

34 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

based on average trip lengths for each land use were determined using CalEEMod. The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work (H-W), home-shop (H-S), and home-other (H-O). Commercial trips include commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type.

The analysis is also based on the EMFAC2014 model. Emissions of GHGs associated with mobile sources from operation of the project are based on the average daily VMT and GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. The types of vehicles that would visit the site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the project was conducted using the vehicle fleet mix for the South Coast Air Basin as provided in EMFAC2014.

The project is considered an "infill" project, as it is replacing existing residential uses 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 provided by the nearby Metro Red Line, which provides convenient access to locations within North Hollywood, Universal City, Hollywood and Downtown Los Angeles and direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood). New housing and job growth, as a result of the completed project, is focused in a high-quality transit area (HQTA), which the Southern California Association of Governments (SCAG) defines as an area within a half mile of a well-serviced transit stop. These land use characteristics are analyzed below to demonstrate that the project would result in reduced vehicle trips, VMT, and associated transportation-related GHG emissions, as well as air pollutant emissions, compared to the statewide and South Coast Air Basin average.

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance for mitigating or reducing emissions from land use development projects. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for recommended reduction measures.[36] The CAPCOA guidance document was utilized in this analysis for quantifying reductions due to land use characteristics and Project Design Features in CalEEMod. 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 compared to the statewide and South Coast Air Basin average. They would, therefore, result in a corresponding reduction in VMT and associated GHG and air pollutant emissions.

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35 Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017.

36 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010).

- **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 measure LUT-1.[37] 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/compact infill location and is mixed-use; therefore, this measure applies to the project. The project would increase the project site density to approximately 181 dwelling units per acre.

- **Location Efficiency:** Location efficiency describes the location of the 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. This measure corresponds to CAPCOA guidance measure LUT-2.[38] 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the geographic location of the project within the region. The project site represents an urban/compact infill location within the Hollywood community of the City 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 South Coast Air Basin average and would result in corresponding reductions in transportation-related emissions.

- **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 could be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This measure corresponds to CAPCOA guidance measure LUT-3.[39] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the percentage of each land use type in the project. The project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The project would include on-site 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

[37] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155-158.
[38] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 159-161.
[39] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162-166.

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.

- **Increased Destination Accessibility:** This characteristic corresponds to CAPCOA guidance measure LUT-4.[40] 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure 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, studio/production, office, entertainment, movie theater, and residential uses. The project site is also located near other job centers in the region, which include Downtown Los Angeles (easily accessible via the Metro Red Line station located within a quarter mile of the site), Beverly Hills, Century City, Westwood, and the Hollywood area itself. The access to multiple destinations in close proximity to the project site would reduce vehicle trips and VMT compared to the statewide and South Coast Air Basin average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.

- **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 measure corresponds to CAPCOA guidance measure LUT -5.[41] According to CAPCOA, the reduction in VMT from this measure 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the distance to transit stations near the project. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood) and the Metro Red Line, which provides convenient access to North Hollywood, Universal City, Hollywood, and Downtown Los Angeles. The project would provide access to on-site uses from existing pedestrian pathways. The project would also provide parking for approximately 402 bicycles on-site to encourage utilization of alternative modes of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the statewide and South Coast Air Basin average, encourage 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 measure corresponds to CAPCOA

[40] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 167-170.

[41] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171-175.

guidance measure SDT-1.[42] According to CAPCOA, the reduction in VMT from this measure applies to urban, suburban, and rural settings for residential, retail, office, industrial, and mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include pedestrian access connectivity within the project and to/from off-site destinations. The project would improve the street-level pedestrian environment and connectivity to the surrounding Hollywood area, with pedestrian access to commercial/restaurant uses provided from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bike parking along Argyle Avenue, Yucca Street, and Vista Del Mar Avenue. 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.

The VMT reductions from the project's land use characteristics 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.[43] Data collected by the City in support of its Health Atlas for the City of Los Angeles demonstrates that the project would be located in an area that would substantially reduce mobile source VMT and GHG emissions relative to the Citywide and statewide averages. 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 organized by Community Plan Area. The project is located in the Hollywood Community Plan Area. A summary and analysis of the Health Atlas findings relative to the Hollywood Community Plan Area are provided below.

- **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."[44] The Health Atlas evaluates land use mix based on a Dissimilarity Index for each census tract and each Community Plan Area. The Dissimilarity Index quantifies the area of six different land uses: single family residential, multifamily residential, retail, entertainment, office, and institutional or community serving. Values were normalized on a scale of 0 to 1, with 1 representing an even distribution of the six uses within an area. The Hollywood Community Plan Area scored the highest out of the 35 Community Plan Areas indicating that the area has the highest number of different types of amenities available in the Community Plan Area. The data indicates that the Hollywood Community Plan Area has a high potential for walkability and offers a high number of destinations available for non-motorized trips. 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

42 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 186-189.
43 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013), http://planning.lacity.org/cwd/framwk/healthwellness/healthwellness.htm. Accessed January 2017.
44 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 86-87.

accommodated by non-auto modes of transport."[45] The high scores for walkability and number of destinations available for non-motorized trips within the Hollywood Community Plan Area supports the expectation that projects located in the area would achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide average. It also follows that projects located in the area would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the statewide average since the City of Los Angeles is more urbanized and has a higher mix and diversity of land uses than the state as a whole.

- **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."[46] In turn, "[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."[47] The Health Atlas evaluates employment density as the number of jobs per square mile. The Hollywood Community Plan Area has the 9th highest employment density of the 35 Community Plan Areas in the City with approximately 4,200 jobs per square mile. The Citywide average employee density is approximately 1,185 jobs per square mile.[48] The data indicates that the Hollywood 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. 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."[49] 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."[50] The high employment density of the Hollywood 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.

- **Walkability:** The Health Atlas 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 Hollywood Community Plan Area has the 9th highest Walkability Index of the 35 Community Plan Areas in the City.[51] 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, reduced VMT and associated GHG emissions. The high Walkability Index of the Hollywood Community Plan Area supports the expectation that projects located in the area would have a highly walkable environment.

45 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162.
46 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 90.
47 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 90.
48 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 102.
49 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155.
50 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155.
51 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 86.

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.

- **Workers Commuting by Walking, Biking, and Public Transportation:** The Health Atlas indicates that the Hollywood Community Plan Area has a high percentage of workers that commute to work by walking, biking, and public transportation. The Hollywood Community Plan Area has the 9th highest percentage of workers that commute to work by walking, biking, and public transportation at about 22 percent for the area as a whole based on 2010 data.[52] The statewide percentage of workers that commute to work by walking, biking, and public transportation is approximately 9 percent based on census data for the 2010 to 2014 period.[53] As discussed previously, the Hollywood Community Plan Area is a high walkable area and the area is also well served by frequent and comprehensive transit including the Metro Red Line, which provides convenient access to Downtown Los Angeles, and multiple bus lines. Thus, the data indicates that the Hollywood Community Plan Area substantially exceeds the statewide average for the percentage of workers that commute to work by walking, biking, and public transportation. The Health Atlas findings are further substantiated by the CAPCOA guidance measures LUT-1, LUT-3, and LUT-9, as discussed previously, and also by LUT-5 (Increase Transit Accessibility), which indicates that "high density near transit will facilitate the use of transit by people."[54] The high level of workers that commute to work by walking, biking, and public transportation in the Hollywood Community Plan Area supports the expectation that projects located in the area would be accessible to 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 average.

The above data from the City's Health Atlas supports the VMT reduction findings in this analysis. The project's specific location in close proximity to high-quality transit, including the Metro Red Line 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 finding in this analysis that the project would achieve a reduction in VMT greater than the Hollywood Community Plan Area average and better than the City and statewide average.

Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing project site. The national policy for fuel efficiency and emissions standards for the United States auto industry requires that new passenger cars and light-duty trucks achieve an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO_2 per mile by model year 2016 (Phase I standards), based on USEPA calculation methods. In August 2012, more stringent phased-in standards were adopted for new model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, new vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO_2 per mile (Phase II standards). By 2025, new vehicles are

52 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 112.
53 U.S. 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 January 2017.
54 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171.

required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile (Phase II standards). All vehicle types would visit the project site. Therefore, this assessment uses the fleet average calendar year emissions factors from EMFAC2014 to estimate mobile source GHG emissions.

The estimated annual emissions from mobile sources from the project are provided in **Table 12**, *Project Mobile Source Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 12
PROJECT MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Fleet Mix Year (All Vehicle Classes)	Extimated Annual VMT[a]	CO_2 Emission Factor (grams/mile)[b]	Annual GHG Emissions ($MTCO_2e$/year)
2021-2050			
2021	8,950,895	417.9	3,741
2022	8,950,895	406.2	3,636
2023	8,950,895	392.7	3,515
2024	8,950,895	382.7	3,426
2025	8,950,895	371.0	3,321
2026	8,950,895	361.2	3,233
2027	8,950,895	352.5	3,155
2028	8,950,895	344.9	3,087
2029	8,950,895	338.2	3,027
2030	8,950,895	332.4	2,976
2031	8,950,895	327.7	2,933
2032	8,950,895	323.3	2,893
2033	8,950,895	319.4	2,859
2034	8,950,895	316.2	2,830
2035	8,950,895	313.6	2,807
2036	8,950,895	311.6	2,789
2037	8,950,895	310.0	2,775
2038	8,950,895	308.8	2,764
2039	8,950,895	307.9	2,756
2040	8,950,895	307.2	2,750
2041	8,950,895	306.8	2,746
2042	8,950,895	306.5	2,744
2043	8,950,895	306.5	2,743
2044	8,950,895	306.5	2,744
2045	8,950,895	306.6	2,745
2046	8,950,895	306.9	2,747
2047	8,950,895	307.2	2,750

Fleet Mix Year (All Vehicle Classes)	Extimated Annual VMT[a]	CO_2 Emission Factor (grams/mile)[b]	Annual GHG Emissions ($MTCO_2e$/year)
2048	8,950,895	307.6	2,753
2049	8,950,895	308.0	2,757
2050	8,950,895	308.6	2,763

NOTES:

[a] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017. Based on the estimated daily VMT multiplied by 365 days per year.

[b] EMFAC2014 Emission Factors.

SOURCE: ESA 2017.

Operational Waste

The project would generate MSW from day-to-day operational activities, which generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal under the project are calculated using CalEEMod. The emissions are based on the size of the commercial, retail, restaurant, and residential land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ are generally calculated in CalEEMod using the general formula shown previously as **Equation 3**.

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. Annual waste disposal rates used in CalEEMod are based on waste generation data for applicable residential and nonresidential land uses from CalRecycle. The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of 76 percent, according to the most recent data available.[55] The GHG emission factors, particularly for CH_4, 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), which are statewide averages, are used in this assessment.

The estimated annual emissions from solid waste disposal from the project are provided in **Table 13**, *Project Solid Waste Disposal Greenhouse Gas Emissions*. The emissions of GHGs due to

[55] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

waste generation would be relatively steady for the years assessed. Detailed emissions calculations are provided in **Appendix B**.

TABLE 13
PROJECT SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use [a]	Waste Diversion [b]	Waste Disposal Rate After Diversion (tons/year)	Landfill gas (no capture)	Landfill Gas (capture with flaring)	Annual GHG Emissions ($MTCO_2e$/year) [c]
2021-2050					
Apartment	76%	112.5	6%	94%	56.6
Hotel	76%	27.3	6%	94%	13.7
Retail/Restaurant	76%	2.7	6%	94%	1.4
Subtotal					**72**

NOTES:

[a] Waste generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 2017. Waste generation is associated with the project's residential, hotel, and retail/restaurant uses.

[b] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

[c] Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the project would require energy to supply, distribute and treat. Emissions of GHGs would result from the combustion of fossil fuels to produce electricity as well as the wastewater treatment process itself, which results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O.

The emissions of GHGs associated with water demand and wastewater generation under the project are calculated using CalEEMod. The emissions are based on the size of the commercial, retail, restaurant, and residential land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod using the general formula shown previously as **Equation 4**.

CalEEMod calculates water demand based on annual rates in the Pacific Institute *Waste Not Want Not* report.[56] CalEEMod provides options to account for the use of water saving features such as

[56] Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. Waste Not, Want Not: The Potential for Urban Water Conservation in California. Published by the Pacific Institute for Studies in Development, Environment, and Security. Full report available online at: http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf. Appendices available online at: http://www.pacinst.org/reports/urban_usage/appendices.htm.

the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets). The project would incorporate PDFs to reduce indoor and outdoor water usage, as summarized previous in PDF-GHG-1. Implementation of these PDFs would reduce indoor water usage by approximately 35 percent compared to typical usage values for developments meeting the minimum requirements. These water reduction factors have been accounted for in CalEEMod.

The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.[57] The same electricity GHG emissions factors discussed under the **Operational Energy – Electricity** subheading are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the *California Emissions Estimator Model User's Guide, Appendix A*.[58] As stated in the *User's Guide*, the GHGs emitted from each type of wastewater treatment are based on the CARB's *Local Government Operations Protocol* (LGOP),[59] which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.[60] The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

The estimated annual emissions from water and wastewater from the project are provided in **Table 14**, *Project Water and Wastewater Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 14
PROJECT WATER AND WASTEWATER GREENHOUSE GAS EMISSIONS

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
2021-2023							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	44.5
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	30.0
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	24.5

57 California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).
58 California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, (2016).
59 California Air Resources Board, Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008).
60 United States Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008).

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.1
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	4.0
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.9
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	2.1
Subtotal							**108**
2024-2026							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	41.1
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	27.7
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	22.6
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.0
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.7
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.7
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.9
Subtotal							**100**
2027-2029							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	38.6
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	26
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	21.2
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.0
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.5
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.5
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.7
Subtotal							**94**
2030-2050							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	36.1
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	24.3
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	19.8
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	0.9
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.3
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.4
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.6
Subtotal							**88**

NOTES:

[a] California Air Resources Board, CalEEModOutput.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Area and Stationary

Area sources of GHG emissions resulting from operation of the project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers. Residential hearths would not be installed in the project's residential uses.

The emissions of GHGs associated with operational area sources under the project are calculated using CalEEMod. The emissions for landscaping equipment are based on the size of the

commercial, retail, restaurant, and residential land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of $MTCO_2e$ are generally calculated in CalEEMod using the general formula shown previously as **Equation 5**. CalEEMod 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)*.[61] CalEEMod estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

Stationary sources would include on-site emergency generator capacity rated at approximately 250 kilowatts (335 horsepower), which would provide emergency power primarily for lighting and other emergency building systems. Emissions of GHGs would be generated during maintenance and testing operations and emissions were estimated separately outside of the CalEEMod software. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines). Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

The estimated annual emissions from area and stationary sources under the project are provided in **Table 15**, *Project Area and Stationary Source Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 15
PROJECT AREA AND STATIONARY SOURCE GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions [a]
Landscaping Equipment	54
Emergency Generator	7
Total GHG Emissions	61

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in **Appendix B**.

SOURCE: ESA 2017.

Summary of Project GHG Emissions

A summary of the GHG emissions under the project is provided in **Table 16**, *Summary of Annual GHG Emissions*.

TABLE 16
SUMMARY OF ANNUAL GHG EMISSIONS

Year	Annual GHG Emissions ($MTCO_2e$/year)							
	Construc-tion	Electricity	Natural Gas	Mobile	Waste	Water and Waste Water	Area and Stationary	Total [a]
Const yr 1	1,466	–	–	–	–	–	–	1,466
Const Yr 2	779	–	–	–	–	–	–	779
2021	–	734	315	3,741	72	108	61	5,031
2022	–	734	315	3,636	72	108	61	4,926
2023	–	734	315	3,515	72	108	61	4,805
2024	–	658	315	3,426	72	100	61	4,632
2025	–	658	315	3,321	72	100	61	4,527
2026	–	658	315	3,233	72	100	61	4,439
2027	–	602	315	3,155	72	94	61	4,299
2028	–	602	315	3,087	72	94	61	4,231
2029	–	602	315	3,027	72	94	61	4,171
2030	–	548	315	2,976	72	88	61	4,060
2031	–	548	315	2,933	72	88	61	4,017
2032	–	548	315	2,893	72	88	61	3,977
2033	–	548	315	2,859	72	88	61	3,943
2034	–	548	315	2,830	72	88	61	3,914
2035	–	548	315	2,807	72	88	61	3,891
2036	–	548	315	2,789	72	88	61	3,873
2037	–	548	315	2,775	72	88	61	3,859
2038	–	548	315	2,764	72	88	61	3,848
2039	–	548	315	2,756	72	88	61	3,840
2040	–	548	315	2,750	72	88	61	3,834
2041	–	548	315	2,746	72	88	61	3,830
2042	–	548	315	2,744	72	88	61	3,828
2043	–	548	315	2,743	72	88	61	3,827
2044	–	548	315	2,744	72	88	61	3,828
2045	–	548	315	2,745	72	88	61	3,829
2046	–	548	315	2,747	72	88	61	3,831
2047	–	548	315	2,750	72	88	61	3,834
2048	–	548	315	2,753	72	88	61	3,837
2049	–	548	315	2,757	72	88	61	3,841
2050	–	548	315	2,763	72	88	61	3,847

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations.

SOURCE: ESA 2017.

Project GHG Emissions Offsets

Annual emissions of GHGs from the project will incorporate GHG emission offsets as necessary to achieve a net zero increase in site GHG emissions, relative to the baseline annual GHG emissions, for the estimated project lifetime. The project Applicant proposes to meet the requirement set forth in California Public Resources Code Section 21183 (c), which requires that the project demonstrate that it will not result in net additional emissions of GHG, through the acquisition of voluntary carbon credits sufficient to offset all projected additional emissions. the Applicant or its successor shall enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (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 achieve a net zero increase in site GHG emissions. Consistent with SCAQMD's definition of the "life of the project" for CEQA GHG purposes, provided in SCAQMD's Governing Board Agenda Item 31, December 5, 2008, the project would be required to offset emissions over a 30-year lifetime. The SCAQMD recommends that offsets should have a 30-year project life, should be real, quantifiable, verifiable, and surplus and will be considered in the following prioritized manner: (1) project design feature/on-site reduction measures; (2) off-site within the neighborhood; (3) off-site within the SCAQMD jurisdiction; (4) off-site within the State; (5) off-site out-of-State. The project would obtain offsets following this prioritization. The necessary offsets are summarized below in **Section 4.0**, *Comparison of Project to Baseline Condition*. Offsets are estimated for a project useful lifetime of 30 years, which is recommended as a presumed project lifetime per SCAQMD guidance.[62]

[62] 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/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2. Accessed January 2017.

4.0
Comparison of Project to Baseline Condition

Table 17, *Evaluation of Net GHG Emissions for the Project*, provides a summary of the determination of net additional GHG emissions comparing the existing site GHG emissions and the project GHG emissions including the project's total construction-related GHG emissions. Based on these GHG emissions estimates, the project would not result in net additional contemporaneous GHG emissions compared to the baseline annual operational emissions at any time.

The project shall commit to obtaining GHG offsets to achieve no net increase in GHG emissions. As such, the project would not result in net contemporaneous GHG emissions compared to the Baseline Condition, taking into account GHG offsets. Therefore, this analysis demonstrates that the project meets the GHG emissions requirements of the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.) and would result in no net GHG emissions.

TABLE 17
EVALUATION OF NET GHG EMISSIONS FOR THE PROJECT

Year	Baseline Annual Operations	Project Total	Estimated Offsets [a]	Net Change from Baseline
2021-2050				
Const yr 1	0 ~~626~~	1,466	1,466 ~~840~~	0
Const Yr 2	0 ~~626~~	779	779 ~~153~~	0
2021	626	5,031	4,405	0
2022	626	4,926	4,300	0
2023	626	4,805	4,179	0
2024	626	4,632	4,006	0
2025	626	4,527	3,901	0
2026	626	4,439	3,813	0
2027	626	4,299	3,673	0
2028	626	4,231	3,605	0
2029	626	4,171	3,545	0
2030	626	4,060	3,434	0
2031	626	4,017	3,391	0
2032	626	3,977	3,351	0
2033	626	3,943	3,317	0
2034	626	3,914	3,288	0
2035	626	3,891	3,265	0
2036	626	3,873	3,247	0
2037	626	3,859	3,233	0
2038	626	3,848	3,222	0
2039	626	3,840	3,214	0
2040	626	3,834	3,208	0
2041	626	3,830	3,204	0
2042	626	3,828	3,202	0
2043	626	3,827	3,201	0
2044	626	3,828	3,202	0
2045	626	3,829	3,203	0
2046	626	3,831	3,205	0
2047	626	3,834	3,208	0
2048	626	3,837	3,211	0
2049	626	3,841	3,215	0
2050	626	3,847	3,221	0

NOTES:

[a] The quantity of GHG emissions offsets may be re-evaluated periodically to account for future reductions from the promulgation of state regulations, such as post-2025 model year vehicle emissions standards and post-2030 Renewables Portfolio Standard and other regulations that would reduce project-related operational GHG emissions but cannot be quantified at this time.

SOURCE: ESA 2017.

Yucca Argyle Project
Application for CEQA Streamlining

- Commitment Letter

February 23, 2017

Ms. Terry Roberts, Manager
Sustainable Communities Policy and Planning Section
California Air Resource Board
9500 Telstar Avenue
El Monte, CA 91731

Re: Greenhouse Gas Emissions Offset Approach for the Yucca Argyle Project

Dear Ms. Roberts:

This letter is provided as a supplement to the application filed by Riley Realty, Ltd. (the "Project Applicant"), who proposes to develop the Yucca Argyle Project (the "Project") in the Hollywood Community Plan and the Hollywood Redevelopment Plan Project area of the City of Los Angeles.

As you know, the Project Applicant has applied for certification by the Governor as a leadership project under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011, as amended (collectively, "AB 900" or the "Act"). The application includes projected emissions for the Project that show certain projected net additional emissions of greenhouse gases (GHG) as a result of the construction of the Project and as a consequence of Project operations. The Project Applicant proposes to meet the requirement set forth in California Public Resources Code Section 21183 (c), which requires that the Project demonstrate that it will not result in net additional emissions of GHG, through the acquisition of voluntary carbon credits sufficient to offset all projected additional emissions, in the following manner:

1. No later than six (6) months after the issuance of a Temporary Certificate of Occupancy for the Project, the Project Sponsor shall provide to the lead agency, the City of Los Angeles, a calculation of the net additional emissions resulting from the construction of the Project (the "Construction Emissions"), to be calculated in accordance with the methodology agreed upon by the Air Resources Board (ARB) in connection with the AB 900 certification of the Project (the "Agreed Methodology"). Project Sponsor shall provide courtesy copies of the calculations to the ARB and the Governor's Office promptly following transmittal of the calculations to the City of Los Angeles. Project Sponsor shall enter into one or more contracts to purchase voluntary carbon credits from a qualified GHG emissions broker in an amount sufficient to offset the Construction Emissions. The Project Sponsor shall provide courtesy copies of any such contracts to the ARB and the Governor's Office promptly following the execution of such contracts.

2. Prior to issuance of any Certificate of Occupancy for any building in the Project, the Applicant or its successor shall enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (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 such building in the Project, as well as all previously constructed buildings in the Project and shall be calculated on a net present value basis for a 30-year useful life.

   Prior to execution of the contract(s), the Applicant and its consultant shall calculate the Operational Emissions, in accordance with the methodology described in the Applicant's "Application for Environmental Leadership Development Project", specifically the "Greenhouse Gas Emissions Methodology and Documentation" prepared by Environmental Science Associates (ESA).

   Once the City has had an opportunity to review and approve the methodology and associated calculations, the Applicant shall provide copies of the calculation methodology to the California Air Resources Board (CARB) and Governor's Office of Planning and Research (OPR), which is then subject to a determination signed by the Executive Officer of CARB pursuant to the procedures set forth in Section 6 of OPR's Guidelines. The City will issue a Certificate of Occupancy upon receipt of the following: (1) a fully executed copy of the carbon offset purchase agreement(s); (2) a final CARB Determination that the Project will not result in any net additional GHG emissions; and (3) a copy of OPR's Certification Letter for the Project.

3. The following project design features were accounted for in the AB 900 application for purposes of reducing GHG emissions and are, therefore, included as commitments in this letter.

   A. The design of the new buildings shall incorporate features to be capable of achieving at least Silver certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)-CS® or LEED-NC® Rating System as of January 1, 2011. Specific sustainability features that are integrated into the Project design to enable the Project to achieve LEED® Silver certification would include but not be limited to the following:

      a. Exceeding Title 24, Part 6, California Energy Code baseline standard requirements by a minimum of 5 percent for energy efficiency, based on the 2016 Building Energy Efficiency Standards requirements.

      b. Use of Energy Star-labeled products and appliances, including dishwashers in the residential units, where appropriate.

      c. Use of light emitting diode (LED) lighting or other energy-efficient lighting technologies, such as occupancy sensors or daylight harvesting and

dimming controls, where appropriate, to reduce electricity use.

d. The Project would reduce indoor water use by a minimum of 35 percent by installing water fixtures that meet Universal Plumbing Code standards.

e. The Project would reduce outdoor water us by a minimum of 50 percent from the calculated baseline at peak watering month by installing efficient irrigation.

B. The residential units within the Project shall not include the use of natural gas-fueled fireplaces.

C. The Project shall provide a minimum of 30 kilowatts of photovoltaic panels on the Project site, unless additional kilowatts of photovoltaic panels become feasible due to additional area being added to the Project Site.

The commitments outlined herein will be incorporated into the Project's Final Environmental Impact Report (FEIR) as a proposed improvement measure. The Project Sponsor will agree to comply with all improvement measures and mitigation measures contained in the FEIR through the Project's Mitigation Monitoring and Reporting Program, which represents a binding and enforceable agreement with the Project's lead agency, the City of Los Angeles.

Should you have any questions, please do not hesitate to call Greg Beck at (310) 312-8047.

Sincerely,

WL Yucca Argyle Owner A, LLC,
a Delaware limited liability company

By: WL Yucca Argyle Parent, LLC,
a Delaware limited liability
company, its sole member

By: Champion Yucca Argyle, LLC,
a Delaware limited liability
company, its managing member

By: _____ Name: Robert D Champion
Its: Authorized Signatory

Yucca Argyle Project
Application for CEQA Streamlining

- LEED Measures

Yucca Argyle Project
LEED Measures

The following list highlights the main sustainability strategies to be implemented into the Yucca Argyle Project in order to achieve the Gold Rating under LEED 2009 (v3) or the Silver Rating under LEED v4 rating system. This is in addition to the strategies needed to reduce the greenhouse gas (GHG) emissions, as required by the California Air Resources Board (ARB).

Design

- Prior to Project approvals, a preliminary LEED action plan will be submitted to the City of Los Angeles Department of City Planning. Prior to issuance of a building permit, conduct a preliminary LEED meeting with a minimum of four key Project team members and the owner or owner's representative. As part of the meeting, review a LEED action plan that, at a minimum (1) determines the LEED certification level to pursue (Certified, Silver, Gold, or Platinum); (2) selects the LEED credits to meet the targeted certification level; and (3) identifies the responsible parties, including but not limited to the Los Angeles Department of Building and Safety, the City of Los Angeles Department of City Planning, the City of Los Angeles Department of Public Works, Bureau of Engineering, to ensure the LEED requirements for each prerequisite and selected credit are met. Modifications to the selected criteria are permissible during construction as long as the LEED certification level continues to be met.

Site

- Implementation of an erosion and sedimentation plan for all construction activities.
- Provision of heat island mitigation strategies for 50 percent of hardscapes or provide 100 percent underground parking.
- Provision of heat island mitigation strategies for 75 percent of roof areas.
- Development of tenant design and construction guidelines, which applies to LEED Core & Shell certification only.

Transportation

- Installation of bike share facilities at the Project Site should a bike share program become available in Los Angeles.
- Allocation of preferred parking for alternative-fuel vehicles, low-emitting, and fuel-efficient and ride-sharing vehicles.
- Provision that 20 percent of parking spaces shall be electric vehicle-ready with 5 percent equipped with charging stations.
- Provide bicycle racks/storage for 5 percent of building users and shower/changing facilities for 0.5 percent of full-time equivalent (FTE) occupants.
- Provide additional bicycle storage and demarcated bike lanes/trails.

Water Quality

- Use of on-site storm water treatment in accordance with City standards.
- Installation of catch basin inserts and screens to provide runoff contaminant removal in accordance with City standards.
- Preparation and implementation of a Stormwater Pollution and Prevention Plan (SWPPP) and Standard Urban Stormwater Mitigation Plan (SUSMP), both of which would include Best Management Practices (BMPs) to control stormwater runoff, minimize pollutant loading and erosion effects during and after construction.

Energy Conservation and Efficiency

- Use of full-cutoff or fully shielded on-street lighting oriented to pedestrian areas/sidewalks so as to minimize overlighting, light trespass, and glare.
- Inclusion of outdoor air flow measuring devices, additional outdoor air ventilation, and use of low emitting materials to promote indoor environmental quality.
- Use of refrigerants that reduce ozone depletion.
- Provision of conduit that is appropriate for future photovoltaic and solar thermal collectors.

- Post-construction commissioning of building energy systems performed on an ongoing basis to ensure all systems are running at optimal efficiency.

- Purchase of renewable source power ("green power") to minimize carbon emissions.

- Review of commissioning activities by an independent Commissioning Agency and development and implementation of commissioning plan.

- Implementation of building level energy meter to provide monthly tracking of energy consumption.

- Provision of metering for tenant space.

Solid Waste

- Provision of on-site recycling containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers during construction and after the building is occupied.

- Use of building materials with a minimum of 10 percent recycled-content by cost for Divisions 2 through 10 for the construction of the Project.

- Implementation of a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris.

- Diversion of construction materials from landfill. Diversion must include at least three material streams (e.g., recovery, reuse, and recycling).

Air Quality

- Employment of practices that prohibit the use of chlorofluorocarbons (CFCs) in heating, ventilation, and air conditioning (HVAC) systems.

- Installation of MERV 13 filtration at outside air intakes to improve indoor air quality (per Los Angeles Municipal Code Sections 99.04.504.6 and 99.05.504.5.3).

- Meeting applicable California and/or Los Angeles air emissions requirements for all heating or cogeneration equipment utilized at the Project Site.

- Installation of landscaping throughout the Project Site, including roof decks, pool decks, and terraces, to provide shading and capture carbon dioxide (CO_2) emissions.

- Use of adhesives, sealants, paints, finishes, carpet, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air quality pollutants.

- Development of an Indoor Air Quality Management Plan for construction and pre-occupancy phases.

- Provision of individual control on thermostats to 50 percent of building occupants. For residential buildings, the credit can be achieved by providing access to operable windows. For commercial spaces, control must be provided to 50 percent of occupants in order to meet the intent of the credit.

- HVAC system design compliance to ASHRAE 55. The Core & Shell base building mechanical systems must allow for the tenant build-out to meet the requirement of this credit.

Appendix A
Baseline Operational Emissions

ESA

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Existing Uses Electricity Demand Rates

Land Use	Climate Zone	T24 Standard	T24 Electricity (kWh/DU/year)	NT24 Electricity (kWh/DU/year)	Lighting Electricity (kWh/DU/year)	Total Electricity (kWh/DU/year)	Per Unit Annual Electricity Usage (MWh/DU/year)
Single-Family	11	2005	467.55	5,089.81	1,608.84	7,166.20	7.17
Single-Family	**11**	**2001**	**582.98**	**5,089.81**	**1,608.84**	**7,281.63**	**7.28**
Apartment Low-Rise	11	2005	170.99	2,630.88	810.36	3,612.23	3.61
Apartment Low-Rise	**11**	**2001**	**225.88**	**2,630.88**	**810.36**	**3,667.12**	**3.67**

Source: California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2016.3.1), Appendix E Section 5, September 2016, http://caleemod.com/. Accessed January 2017.

California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2013.2), Appendix E Section 5, July 2013, http://caleemod.com/. Accessed January 2017.

Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Existing Uses Electricity Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Existing Uses Natural Gas Demand Rates

Land Use	Climate Zone	T24 Standard	T24 Natural Gas (kBtu/DU or sf/year)	NT24 Natural Gas (kBtu/DU or sf/year)	Total Natural Gas (kWh/DU/year)	Per Unit Annual Natural Gas Usage (MWh/DU/year)
Single-Family	11	2005	28,628.82	5,819.00	34,447.82	34.45
Single-Family	**11**	**2001**	**30,684.69**	**5,819.00**	**36,503.69**	**36.50**
Apartment Low-Rise	11	2005	11,673.00	2,578.64	14,251.64	14.25
Apartment Low-Rise	**11**	**2001**	**13,846.98**	**2,578.64**	**16,425.62**	**16.43**

Source: California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2016.3.1), Appendix E Section 5, September 2016, http://caleemod.com/. Accessed January 2017.
California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2013.2), Appendix E Section 5, July 2013, http://caleemod.com/. Accessed January 2017.
Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Existing Uses Natural Gas Greenhouse Gas Emissions

Refer to CalEEMod output files.

Existing Uses Solid Waste Disposal Rates

Land Use	Project Units	Solid Waste Factor [a] (lbs/unit/day)	Solid Waste Before Diversion (tons/year)	Diversion Rate [b] (%)	Solid Waste After Diversion
Residential	44 DU	12.23	98.2	76%	23.6
Total Project					**23.6**

Notes:

a. Generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed October 2015.

b. City of Los Angeles, Zero Waste Progress Report, (March 2013) 3. According to the Report, the City achieved a landfill diversion rate of approximately 76% by year 2012.

Source: ESA 2017.

Existing Uses Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

Existing Uses Water Demand Rates

Land Use	Units (DU, Rooms, or 1000 sqft)	Wastewater Generation [a] (gal/unit/day)	Water Demand [b] (gal/day)	Indoor Water Demand Rate (gal/year)	Outdoor Water Demand Rate (gal/year)	Indoor Water Reduction (%)	Reduced Indoor Water Demand Rate (gal/year)	Outdoor Water Reduction (%)	Reduced Outdoor Water Demand Rate (gal/year)
Multi-Family Residential	43		6,402	1,947,275	389,455	-	1,947,275	-	389,455
Studio	*1*	*75*	*90*						
One Bedroom	*26*	*110*	*3,432*						
Two Bedroom	*16*	*150*	*2,880*						
Three Bedroom	*-*	*190*	*-*						
Single-Family Residential	1	185	222	67,525	13,505	-	67,525	-	13,505
Parking/Asphalt/Hardscape	28	20	672	-	245,280	-	-	-	245,280
Total Water Demand				**2,014,800**	**648,240**		**2,014,800**		**648,240**

Notes:

a. Wastewater generation factors obtained from City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR), dated January 2017 and based on Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories, dated April 6, 2012.

b. Water demand rates are calculated based on the wastewater generation rates and increasing the factor by 20% to account for absorption, evaporation, consumption, irrigation, and other losses.

Source: ESA 2017.

Existing Uses Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 West Yucca Street Mixed Use Project - Existing Site Operations

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	28.00	1000sqft	0.64	28,000.00	0
Apartments Low Rise	43.00	Dwelling Unit	0.80	18,952.00	87
Single Family Housing	1.00	Dwelling Unit	0.16	1,367.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2015
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1132	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

Land Use - Multi-Family (43 DU); Single-Family (1 DU). Pop.=2.03/DU per census data for Hollywood Community Plan Area.

Vehicle Trips -

Woodstoves - Assumes no woodstoves. 1 Fireplace at duplex multi-family unit. No fireplaces at single-family or apartment units.

Energy Use - Title 24 (2001): California Air Resources Board, CalEEMod User's Guide, Appendix E, Section 5. Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Water And Wastewater - Refer to "Existing Uses Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Existing Uses Solid Waste Disposal Rates" worksheet provided in this Appendix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3,418.36	2,630.88
tblEnergyUse	NT24E	6,680.41	5,089.81
tblEnergyUse	NT24NG	4,831.00	2,578.64
tblEnergyUse	NT24NG	4,831.00	5,819.00
tblEnergyUse	T24E	159.21	225.88
tblEnergyUse	T24E	238.85	582.98
tblEnergyUse	T24NG	13,398.37	13,846.98
tblEnergyUse	T24NG	28,690.19	30,684.69
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	36.55	0.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	4.30	42.00
tblFireplaces	NumberNoFireplace	0.10	1.00
tblFireplaces	NumberWood	2.15	1.00
tblFireplaces	NumberWood	0.05	0.00
tblLandUse	BuildingSpaceSquareFeet	43,000.00	18,952.00
tblLandUse	BuildingSpaceSquareFeet	1,800.00	1,367.00
tblLandUse	LandUseSquareFeet	43,000.00	18,952.00
tblLandUse	LandUseSquareFeet	1,800.00	1,367.00
tblLandUse	LotAcreage	2.69	0.80
tblLandUse	LotAcreage	0.32	0.16
tblLandUse	Population	123.00	87.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1132
tblProjectCharacteristics	OperationalYear	2018	2015
tblSolidWaste	SolidWasteGenerationRate	19.78	23.03
tblSolidWaste	SolidWasteGenerationRate	1.23	0.54
tblWater	IndoorWaterUseRate	2,801,623.10	1,947,275.00

tblWater	IndoorWaterUseRate	65,154.03	67,525.00
tblWater	OutdoorWaterUseRate	1,766,240.65	389,455.00
tblWater	OutdoorWaterUseRate	0.00	245,280.00
tblWater	OutdoorWaterUseRate	41,075.36	13,505.00
tblWoodstoves	NumberCatalytic	2.15	0.00
tblWoodstoves	NumberCatalytic	0.05	0.00
tblWoodstoves	NumberNoncatalytic	2.15	0.00
tblWoodstoves	NumberNoncatalytic	0.05	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Energy	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	136.9962	136.9962	3.2500e-003	1.2400e-003	137.4479
Waste						0.0000	0.0000		0.0000	0.0000	4.7845	0.0000	4.7845	0.2828	0.0000	11.8534
Water						0.0000	0.0000		0.0000	0.0000	0.6392	17.1686	17.8078	0.0661	1.6400e-003	19.9492

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Energy	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	136.9962	136.9962	3.2500e-003	1.2400e-003	137.4479
Waste						0.0000	0.0000		0.0000	0.0000	4.7845	0.0000	4.7845	0.2828	0.0000	11.8534
Water						0.0000	0.0000		0.0000	0.0000	0.6392	17.1686	17.8078	0.0661	1.6400e-003	19.9492
Total	**0.3282**	**0.8376**	**2.8811**	**5.6600e-003**	**0.3807**	**0.0233**	**0.4040**	**0.1021**	**0.0228**	**0.1249**	**6.2096**	**641.8393**	**648.0489**	**0.3858**	**2.9500e-003**	**658.5738**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	97.3573	97.3573	2.4900e-003	5.2000e-004	97.5734
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	97.3573	97.3573	2.4900e-003	5.2000e-004	97.5734
NaturalGas Mitigated	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6389	39.6389	7.6000e-004	7.3000e-004	39.8745
NaturalGas Unmitigated	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6389	39.6389	7.6000e-004	7.3000e-004	39.8745

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	706302	3.8100e-003	0.0326	0.0139	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.6910	37.6910	7.2000e-004	6.9000e-004	37.9149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36503.7	2.0000e-004	1.6800e-003	7.2000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9480	1.9480	4.0000e-005	4.0000e-005	1.9596
Total		**4.0100e-003**	**0.0342**	**0.0146**	**2.2000e-004**		**2.7700e-003**	**2.7700e-003**		**2.7700e-003**	**2.7700e-003**	**0.0000**	**39.6389**	**39.6389**	**7.6000e-004**	**7.3000e-004**	**39.8745**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	706302	3.8100e-003	0.0326	0.0139	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.6910	37.6910	7.2000e-004	6.9000e-004	37.9149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36503.7	2.0000e-004	1.6800e-003	7.2000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9480	1.9480	4.0000e-005	4.0000e-005	1.9596
Total		**4.0100e-003**	**0.0342**	**0.0146**	**2.2000e-004**		**2.7700e-003**	**2.7700e-003**		**2.7700e-003**	**2.7700e-003**	**0.0000**	**39.6389**	**39.6389**	**7.6000e-004**	**7.3000e-004**	**39.8745**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	157686	80.9666	2.0700e-003	4.3000e-004	81.1463
Parking Lot	24640	12.6518	3.2000e-004	7.0000e-005	12.6799
Single Family Housing	7281.63	3.7389	1.0000e-004	2.0000e-005	3.7472
Total		**97.3573**	**2.4900e-003**	**5.2000e-004**	**97.5734**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	157686	80.9666	2.0700e-003	4.3000e-004	81.1463
Parking Lot	24640	12.6518	3.2000e-004	7.0000e-005	12.6799
Single Family Housing	7281.63	3.7389	1.0000e-004	2.0000e-005	3.7472
Total		**97.3573**	**2.4900e-003**	**5.2000e-004**	**97.5734**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Unmitigated	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0584	6.6000e-004	0.0644	1.0000e-004		8.8200e-003	8.8200e-003		8.8200e-003	8.8200e-003	0.7859	0.0000	0.7859	0.0000	7.0000e-005	0.8066
Landscaping	0.0148	5.4500e-003	0.4626	2.0000e-005		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	0.7419	0.7419	7.7000e-004	0.0000	0.7612
Total	**0.1552**	**6.1100e-003**	**0.5270**	**1.2000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.7859**	**0.7419**	**1.5278**	**7.7000e-004**	**7.0000e-005**	**1.5678**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0584	6.6000e-004	0.0644	1.0000e-004		8.8200e-003	8.8200e-003		8.8200e-003	8.8200e-003	0.7859	0.0000	0.7859	0.0000	7.0000e-005	0.8066
Landscaping	0.0148	5.4500e-003	0.4626	2.0000e-005		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	0.7419	0.7419	7.7000e-004	0.0000	0.7612
Total	**0.1552**	**6.1100e-003**	**0.5270**	**1.2000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.7859**	**0.7419**	**1.5278**	**7.7000e-004**	**7.0000e-005**	**1.5678**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.8078	0.0661	1.6400e-003	19.9492
Unmitigated	17.8078	0.0661	1.6400e-003	19.9492

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.94728 / 0.389455	15.8587	0.0638	1.5800e-003	17.9253
Parking Lot	0 / 0.24528	1.3992	4.0000e-005	1.0000e-005	1.4023
Single Family Housing	0.067525 / 0.013505	0.5499	2.2100e-003	5.0000e-005	0.6216
Total		**17.8078**	**0.0661**	**1.6400e-003**	**19.9492**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.94728 / 0.389455	15.8587	0.0638	1.5800e-003	17.9253
Parking Lot	0 / 0.24528	1.3992	4.0000e-005	1.0000e-005	1.4023
Single Family Housing	0.067525 / 0.013505	0.5499	2.2100e-003	5.0000e-005	0.6216
Total		**17.8078**	**0.0661**	**1.6400e-003**	**19.9492**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.7845	0.2828	0.0000	11.8534
Unmitigated	4.7845	0.2828	0.0000	11.8534

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23.03	4.6749	0.2763	0.0000	11.5818
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.54	0.1096	6.4800e-003	0.0000	0.2716
Total		**4.7845**	**0.2828**	**0.0000**	**11.8534**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23.03	4.6749	0.2763	0.0000	11.5818
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.54	0.1096	6.4800e-003	0.0000	0.2716
Total		**4.7845**	**0.2828**	**0.0000**	**11.8534**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

	GHG Emission Factors (metric tons/mile)			
Year	**CO2**	**CH4**	**N2O**	**CO2e**
	1	*25*	*298*	
2015	4.83E-04	3.12E-08	-	4.84E-04
2018	4.51E-04	2.39E-08	-	4.52E-04
2021	4.17E-04	1.90E-08	-	4.18E-04
2022	4.06E-04	1.78E-08	-	4.06E-04
2023	3.92E-04	1.66E-08	-	3.93E-04
2024	3.82E-04	1.58E-08	-	3.83E-04
2025	3.71E-04	1.50E-08	-	3.71E-04
2026	3.61E-04	1.42E-08	-	3.61E-04
2027	3.52E-04	1.36E-08	-	3.52E-04
2028	3.45E-04	1.31E-08	-	3.45E-04
2029	3.38E-04	1.26E-08	-	3.38E-04
2030	3.32E-04	1.22E-08	-	3.32E-04
2031	3.27E-04	1.18E-08	-	3.28E-04
2032	3.23E-04	1.15E-08	-	3.23E-04
2033	3.19E-04	1.12E-08	-	3.19E-04
2034	3.16E-04	1.10E-08	-	3.16E-04
2035	3.13E-04	1.08E-08	-	3.14E-04
2036	3.11E-04	1.06E-08	-	3.12E-04
2037	3.10E-04	1.04E-08	-	3.10E-04
2038	3.09E-04	1.03E-08	-	3.09E-04
2039	3.08E-04	1.02E-08	-	3.08E-04
2040	3.07E-04	1.01E-08	-	3.07E-04
2041	3.07E-04	1.00E-08	-	3.07E-04
2042	3.06E-04	9.94E-09	-	3.07E-04
2043	3.06E-04	9.89E-09	-	3.06E-04
2044	3.06E-04	9.82E-09	-	3.07E-04
2045	3.06E-04	9.76E-09	-	3.07E-04
2046	3.07E-04	9.65E-09	-	3.07E-04
2047	3.07E-04	9.61E-09	-	3.07E-04
2048	3.07E-04	9.59E-09	-	3.08E-04
2049	3.08E-04	9.56E-09	-	3.08E-04
2050	3.08E-04	9.53E-09	-	3.09E-04

Source: EMFAC2014, South Coast Air Basin (Los Angeles County), "Emissions" (or "Burden") mode.

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

			GHG Emission Factors (metric tons/year)			
Scenario	**Year**	**VMT/year**	**CO2**	**CH4**	**N2O**	**CO2e**
			1	*25*	*298*	
Existing Uses	2015	939,145	453.51	0.03	-	454

Source: ESA 2017

Appendix B

Project Construction and Operational Emissions

ESA

B-1 Project Construction Emissions

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Air Quality and Greenhouse Gas Assessment

Project Information

Land Use	CalEEMod Land Use Type	Units			
Residential	High-rise Apartment	210	DU	242,285	sf
Recreational	Hotel	136	rooms	80,335	sf
Retail	Strip Mall	3.5	KSF	3,450	sf
Recreational	Restaurant	9.1	KSF	9,050	sf
Parking	Unenclosed Parking with Elevator	232	spaces	100,483	sf
Parking	Enclosed Parking with Elevator	206	spaces	89,222	sf
Pool/Deck/Spa	Recreational Swimming Pool	4.8	KSF	4,840	sf
Fitness Center	Health Club	2.5	KSF	2,530	sf
Other Open Space/Amenities	City Park	18.5	KSF	18,535	sf
Total Building Area (excluding parking and open space)				335,120	sf
Total Lot Area (acres)/Developed Area (sf)		1.16	acres		

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

Note:

a. California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2014 with 2010 Census Benchmark, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php. Accessed September 2014.

Source: 6220 West Yucca Design Plans, prepared by Togawa Smith Martin 2016.

Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs

CalEEMod Construction Phase	Start Date	End Date	No. Work Days	Demo (CY)	Demo Truck Capacity (CY)	Demo Truck Total One-Way Trips	Demo Truck Daily One-Way Trips	Soil Export (CY)	Soil Import (CY)	Soil Haul Truck Capacity (CY)	Soil Haul Truck Total One-Way Trips	Soil Haul Truck Daily One-Way Trips	Vendor One-Way Trips/Max Day [a]	Worker One-Way Trips/Max Day [b]
Demolition	1/1/2018	1/21/2018	15	5,000	10	1,000	67						6	18
Site Preparation	1/22/2018	1/31/2018	8											18
Grading/Excavation	2/1/2018	5/31/2018	86					120,000	-	14	17,200	200	6	20
Building Construction 1	6/1/2018	6/30/2019	281										73	280
Building Construction 2	7/1/2019	10/31/2019	89										73	280
Paving	9/1/2019	12/31/2019	87											18
Architectural Coating	7/1/2019	10/31/2019	89											56

Notes:

a. Vendor trips are associated with the Building Construction phase and are based on CalEEMod assumptions.

b. Worker trips are based on CalEEMod assumptions.

Source: ESA 2017.

6220 West Yucca Street Mixed Use Project
Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Demolition

Demolition Schedule				**Notes**
Start Date	1/1/2018			
End Date	1/21/2018			
Work Days	15			

Demolition Quantities				
Land Use	**Amount**	***Units***		
6220-6224 Yucca	27.0	*KSF*		Estimate from Google Earth, two story multi-family
6210-6216 Yucca	16.0	*KSF*		Estimate from Google Earth, two story multi-family
1765-1779 Vista del Mar	5.3	*KSF*		Estimate from Google Earth, single story and two story single-family
Total	**48.3**	*KSF*		
Total (rounded up)	**50.0**		<-------	**ENTER VALUE INTO CALEEMOD**

Demolition Volume				
Total Area (KSF)	50			
Floor Height (ft)	10			Assumed
Building Volume (ft3)	500,000			
Building Volume (CY)	18,519			
Debris Volume (CY)	5,000	*(rounded, estimated)*		Rounded, 1 CY building volume = 0.25 CY waste volume
Truck Size (CY)	10			
Total One-way Truck Trips	**1,000**	*(rounded, estimated)*	<-------	**ENTER VALUE INTO CALEEMOD**
Daily One-way Truck Trips	67	*trips/day*		

6220 West Yucca Street Mixed Use Project
Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Excavation

Demolition Schedule

Start Date	2/1/2018
End Date	5/31/2018
Duration (days)	86

Estimated Soil Excavation

Land Use	Height		Area			Resulting Volume			Soil Export	
Loading Area	15	feet	1.0	KSF	=	18,150	ft3	=	672	CY
Building 1 Sub Parking	11	feet	108.0	KSF	=	1,437,480	ft3	=	53,240	CY
Building 2 Sub Parking	11	feet	7.0	KSF	=	93,170	ft3	=	3,451	CY
Foundation	20	feet	48.0	KSF (footprint)	=	1,161,600	ft3	=	43,022	CY
Total									**100,385**	**CY**
Total with 10% Contingency Added									**110,424**	**CY**

Total Soil Export (CY)	**120,000**	*(rounded, estimated)*	<-------	**ENTER VALUE INTO CALEEMOD**
Truck Size (CY)	**14**			
Total One-way Truck Trips	**17,200**		<-------	**ENTER VALUE INTO CALEEMOD**
Daily One-way Truck Trips	200	*trips/day*		

6220 W Yucca Street Project - Construction

South Coast Air Basin, Annual

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	601
Hotel	136.00	Room	0.21	80,335.00	0
Strip Mall	3.45	1000sqft	0.05	3,450.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	595	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Construction Phase - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Grading -

Demolition -

Trips and VMT - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet.

Construction Off-road Equipment Mitigation - Tier 3+DPF Equipment; Tier 4 Equipment (for equipment 90 HP and greater); Water Unpaved Roads and Exposed Areas 3 X Daily; Limit On-Site Speed to 15 MPH or less.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	FuelType	Diesel	CNG
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	89.00
tblConstructionPhase	NumDays	200.00	281.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	4.00	86.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	NumDays	2.00	8.00
tblConstructionPhase	NumDays	200.00	89.00
tblConstructionPhase	PhaseEndDate	12/10/2018	10/31/2019
tblConstructionPhase	PhaseEndDate	11/12/2018	6/30/2019
tblConstructionPhase	PhaseEndDate	1/26/2018	1/21/2018
tblConstructionPhase	PhaseEndDate	2/5/2018	5/31/2018
tblConstructionPhase	PhaseEndDate	11/26/2018	12/31/2019
tblConstructionPhase	PhaseEndDate	1/30/2018	1/31/2018
tblConstructionPhase	PhaseStartDate	11/27/2018	7/1/2019
tblConstructionPhase	PhaseStartDate	2/6/2018	6/1/2018

tblConstructionPhase	PhaseStartDate	1/31/2018	2/1/2018
tblConstructionPhase	PhaseStartDate	11/13/2018	9/1/2019
tblConstructionPhase	PhaseStartDate	1/27/2018	1/22/2018
tblGrading	MaterialExported	0.00	120,000.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	0.06	0.05
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	595
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripNumber	227.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,200.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	15.00	18.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.5595	7.3070	4.1161	0.0154	0.7661	0.2021	0.9682	0.2688	0.1881	0.4569	0.0000	1,455.0038	1,455.0038	0.1748	0.0000	1,459.3740
2019	1.6099	2.9084	3.3380	8.4300e-003	0.4209	0.1194	0.5403	0.1129	0.1120	0.2250	0.0000	770.3265	770.3265	0.0816	0.0000	772.3670
Maximum	**1.6099**	**7.3070**	**4.1161**	**0.0154**	**0.7661**	**0.2021**	**0.9682**	**0.2688**	**0.1881**	**0.4569**	**0.0000**	**1,455.0038**	**1,455.0038**	**0.1748**	**0.0000**	**1,459.3740**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.2811	4.3175	5.6139	0.0154	0.5662	0.0285	0.5947	0.1772	0.0277	0.2049	0.0000	1,462.3326	1,462.3326	0.1771	0.0000	1,466.7599
2019	1.4599	1.6796	4.6401	8.4300e-003	0.4209	0.0178	0.4387	0.1129	0.0173	0.1302	0.0000	776.4467	776.4467	0.0836	0.0000	778.5356
Maximum	**1.4599**	**4.3175**	**5.6139**	**0.0154**	**0.5662**	**0.0285**	**0.5947**	**0.1772**	**0.0277**	**0.2049**	**0.0000**	**1,462.3326**	**1,462.3326**	**0.1771**	**0.0000**	**1,466.7599**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.75**	**41.29**	**-37.56**	**0.00**	**16.84**	**85.61**	**31.49**	**23.99**	**85.03**	**50.86**	**0.00**	**-0.60**	**-0.60**	**-1.64**	**0.00**	**-0.61**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2018**	**3-31-2018**	3.0475	1.6724
2	**4-1-2018**	**6-30-2018**	2.7820	1.6908
3	**7-1-2018**	**9-30-2018**	0.9563	0.5659
4	**10-1-2018**	**12-31-2018**	0.9656	0.5752
5	**1-1-2019**	**3-31-2019**	0.8718	0.5312
6	**4-1-2019**	**6-30-2019**	0.8733	0.5290
7	**7-1-2019**	**9-30-2019**	1.6665	1.4326
		Highest	3.0475	1.6908

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/21/2018	5	15	
2	Site Preparation	Site Preparation	1/22/2018	1/31/2018	5	8	
3	Grading	Grading	2/1/2018	5/31/2018	5	86	
4	Building Construction 1	Building Construction	6/1/2018	6/30/2019	5	281	
5	Paving	Paving	9/1/2019	12/31/2019	5	87	
6	Architectural Coating	Architectural Coating	7/1/2019	10/31/2019	5	89	
7	Building Construction 2	Building Construction	7/1/2019	10/31/2019	5	89	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 86

Acres of Paving: 0.2

Residential Indoor: 490,627; Residential Outdoor: 163,542; Non-Residential Indoor: 143,048; Non-Residential Outdoor: 47,683; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction 1	Generator Sets	1	8.00	84	0.74
Building Construction 1	Cranes	0	6.00	231	0.29
Building Construction 1	Forklifts	3	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	2	6.00	130	0.42
Paving	Rollers	2	7.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction 1	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	7.00	247	0.40
Building Construction 1	Welders	0	8.00	46	0.45
Building Construction 2	Cranes	0	6.00	231	0.29
Building Construction 2	Forklifts	0	6.00	89	0.20
Building Construction 2	Generator Sets	1	8.00	84	0.74
Building Construction 2	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction 2	Welders	0	8.00	46	0.45
Demolition	Excavators	1	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction 1	Other Construction Equipment	1	8.00	172	0.42

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	56.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	6	280.00	73.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	18.00	6.00	1,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	17,200.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 2	2	280.00	73.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0257	0.2708	0.1428	2.4000e-004		0.0145	0.0145		0.0133	0.0133	0.0000	21.6245	21.6245	6.7300e-003	0.0000	21.7928
Total	**0.0257**	**0.2708**	**0.1428**	**2.4000e-004**	**0.0246**	**0.0145**	**0.0391**	**3.7300e-003**	**0.0133**	**0.0171**	**0.0000**	**21.6245**	**21.6245**	**6.7300e-003**	**0.0000**	**21.7928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.1625	0.0315	4.0000e-004	8.5900e-003	6.1000e-004	9.2100e-003	2.3600e-003	5.9000e-004	2.9500e-003	0.0000	38.7952	38.7952	2.8500e-003	0.0000	38.8666
Vendor	2.0000e-004	5.5800e-003	1.4600e-003	1.0000e-005	2.8000e-004	4.0000e-005	3.2000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.1182	1.1182	8.0000e-005	0.0000	1.1202
Worker	7.2000e-004	5.9000e-004	6.3100e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.4222	1.4222	5.0000e-005	0.0000	1.4234
Total	**5.5200e-003**	**0.1687**	**0.0393**	**4.3000e-004**	**0.0104**	**6.6000e-004**	**0.0110**	**2.8300e-003**	**6.4000e-004**	**3.4700e-003**	**0.0000**	**41.3356**	**41.3356**	**2.9800e-003**	**0.0000**	**41.4102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.6000e-003	0.0000	9.6000e-003	1.4500e-003	0.0000	1.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0126	0.1396	2.4000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	21.6245	21.6245	6.7300e-003	0.0000	21.7928
Total	**2.9000e-003**	**0.0126**	**0.1396**	**2.4000e-004**	**9.6000e-003**	**3.9000e-004**	**9.9900e-003**	**1.4500e-003**	**3.9000e-004**	**1.8400e-003**	**0.0000**	**21.6245**	**21.6245**	**6.7300e-003**	**0.0000**	**21.7928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.1625	0.0315	4.0000e-004	8.5900e-003	6.1000e-004	9.2100e-003	2.3600e-003	5.9000e-004	2.9500e-003	0.0000	38.7952	38.7952	2.8500e-003	0.0000	38.8666
Vendor	2.0000e-004	5.5800e-003	1.4600e-003	1.0000e-005	2.8000e-004	4.0000e-005	3.2000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.1182	1.1182	8.0000e-005	0.0000	1.1202
Worker	7.2000e-004	5.9000e-004	6.3100e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.4222	1.4222	5.0000e-005	0.0000	1.4234
Total	**5.5200e-003**	**0.1687**	**0.0393**	**4.3000e-004**	**0.0104**	**6.6000e-004**	**0.0110**	**2.8300e-003**	**6.4000e-004**	**3.4700e-003**	**0.0000**	**41.3356**	**41.3356**	**2.9800e-003**	**0.0000**	**41.4102**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0632	0.0000	0.0632	0.0348	0.0000	0.0348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0165	0.1740	0.0833	1.4000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	12.7335	12.7335	3.9600e-003	0.0000	12.8326
Total	**0.0165**	**0.1740**	**0.0833**	**1.4000e-004**	**0.0632**	**9.3900e-003**	**0.0726**	**0.0348**	**8.6400e-003**	**0.0434**	**0.0000**	**12.7335**	**12.7335**	**3.9600e-003**	**0.0000**	**12.8326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	3.1000e-004	3.3700e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7585	0.7585	3.0000e-005	0.0000	0.7592
Total	**3.8000e-004**	**3.1000e-004**	**3.3700e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7585**	**0.7585**	**3.0000e-005**	**0.0000**	**0.7592**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0247	0.0000	0.0247	0.0136	0.0000	0.0136	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	7.3900e-003	0.0777	1.4000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	12.7334	12.7334	3.9600e-003	0.0000	12.8326
Total	**1.7100e-003**	**7.3900e-003**	**0.0777**	**1.4000e-004**	**0.0247**	**2.3000e-004**	**0.0249**	**0.0136**	**2.3000e-004**	**0.0138**	**0.0000**	**12.7334**	**12.7334**	**3.9600e-003**	**0.0000**	**12.8326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	3.1000e-004	3.3700e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7585	0.7585	3.0000e-005	0.0000	0.7592
Total	**3.8000e-004**	**3.1000e-004**	**3.3700e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7585**	**0.7585**	**3.0000e-005**	**0.0000**	**0.7592**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2398	0.0000	0.2398	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1633	1.8888	1.1411	2.2800e-003		0.0835	0.0835		0.0769	0.0769	0.0000	207.9049	207.9049	0.0647	0.0000	209.5230
Total	**0.1633**	**1.8888**	**1.1411**	**2.2800e-003**	**0.2398**	**0.0835**	**0.3234**	**0.1117**	**0.0769**	**0.1885**	**0.0000**	**207.9049**	**207.9049**	**0.0647**	**0.0000**	**209.5230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0791	2.7955	0.5414	6.8000e-003	0.1478	0.0106	0.1584	0.0406	0.0101	0.0507	0.0000	667.2776	667.2776	0.0491	0.0000	668.5049
Vendor	1.1300e-003	0.0320	8.3800e-003	7.0000e-005	1.6300e-003	2.3000e-004	1.8600e-003	4.7000e-004	2.2000e-004	6.9000e-004	0.0000	6.4111	6.4111	4.6000e-004	0.0000	6.4226
Worker	4.5600e-003	3.7400e-003	0.0402	1.0000e-004	9.4400e-003	8.0000e-005	9.5100e-003	2.5100e-003	7.0000e-005	2.5800e-003	0.0000	9.0600	9.0600	3.1000e-004	0.0000	9.0678
Total	**0.0848**	**2.8313**	**0.5900**	**6.9700e-003**	**0.1589**	**0.0109**	**0.1697**	**0.0436**	**0.0104**	**0.0539**	**0.0000**	**682.7487**	**682.7487**	**0.0499**	**0.0000**	**683.9953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0935	0.0000	0.0935	0.0436	0.0000	0.0436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0281	0.1216	1.2370	2.2800e-003		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	207.9047	207.9047	0.0647	0.0000	209.5228
Total	**0.0281**	**0.1216**	**1.2370**	**2.2800e-003**	**0.0935**	**3.7400e-003**	**0.0973**	**0.0436**	**3.7400e-003**	**0.0473**	**0.0000**	**207.9047**	**207.9047**	**0.0647**	**0.0000**	**209.5228**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0791	2.7955	0.5414	6.8000e-003	0.1478	0.0106	0.1584	0.0406	0.0101	0.0507	0.0000	667.2776	667.2776	0.0491	0.0000	668.5049
Vendor	1.1300e-003	0.0320	8.3800e-003	7.0000e-005	1.6300e-003	2.3000e-004	1.8600e-003	4.7000e-004	2.2000e-004	6.9000e-004	0.0000	6.4111	6.4111	4.6000e-004	0.0000	6.4226
Worker	4.5600e-003	3.7400e-003	0.0402	1.0000e-004	9.4400e-003	8.0000e-005	9.5100e-003	2.5100e-003	7.0000e-005	2.5800e-003	0.0000	9.0600	9.0600	3.1000e-004	0.0000	9.0678
Total	**0.0848**	**2.8313**	**0.5900**	**6.9700e-003**	**0.1589**	**0.0109**	**0.1697**	**0.0436**	**0.0104**	**0.0539**	**0.0000**	**682.7487**	**682.7487**	**0.0499**	**0.0000**	**683.9953**

3.5 Building Construction 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1263	1.1922	0.9411	1.4100e-003		0.0763	0.0763		0.0717	0.0717	0.0000	125.8527	125.8527	0.0289	0.0000	126.5753
Total	**0.1263**	**1.1922**	**0.9411**	**1.4100e-003**		**0.0763**	**0.0763**		**0.0717**	**0.0717**	**0.0000**	**125.8527**	**125.8527**	**0.0289**	**0.0000**	**126.5753**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0243	0.6884	0.1802	1.4200e-003	0.0350	4.9600e-003	0.0399	0.0101	4.7400e-003	0.0148	0.0000	137.8630	137.8630	9.9300e-003	0.0000	138.1113
Worker	0.1128	0.0926	0.9949	2.4800e-003	0.2335	1.9100e-003	0.2354	0.0620	1.7600e-003	0.0638	0.0000	224.1825	224.1825	7.6800e-003	0.0000	224.3744
Total	**0.1371**	**0.7810**	**1.1752**	**3.9000e-003**	**0.2684**	**6.8700e-003**	**0.2753**	**0.0721**	**6.5000e-003**	**0.0786**	**0.0000**	**362.0454**	**362.0454**	**0.0176**	**0.0000**	**362.4856**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0207	0.3947	2.3518	1.4100e-003		5.7600e-003	5.7600e-003		5.7600e-003	5.7600e-003	0.0000	133.1818	133.1818	0.0312	0.0000	133.9615
Total	**0.0207**	**0.3947**	**2.3518**	**1.4100e-003**		**5.7600e-003**	**5.7600e-003**		**5.7600e-003**	**5.7600e-003**	**0.0000**	**133.1818**	**133.1818**	**0.0312**	**0.0000**	**133.9615**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0243	0.6884	0.1802	1.4200e-003	0.0350	4.9600e-003	0.0399	0.0101	4.7400e-003	0.0148	0.0000	137.8630	137.8630	9.9300e-003	0.0000	138.1113
Worker	0.1128	0.0926	0.9949	2.4800e-003	0.2335	1.9100e-003	0.2354	0.0620	1.7600e-003	0.0638	0.0000	224.1825	224.1825	7.6800e-003	0.0000	224.3744
Total	**0.1371**	**0.7810**	**1.1752**	**3.9000e-003**	**0.2684**	**6.8700e-003**	**0.2753**	**0.0721**	**6.5000e-003**	**0.0786**	**0.0000**	**362.0454**	**362.0454**	**0.0176**	**0.0000**	**362.4856**

3.5 Building Construction 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0970	0.9283	0.7924	1.1900e-003		0.0574	0.0574		0.0539	0.0539	0.0000	105.6930	105.6930	0.0242	0.0000	106.2984
Total	**0.0970**	**0.9283**	**0.7924**	**1.1900e-003**		**0.0574**	**0.0574**		**0.0539**	**0.0539**	**0.0000**	**105.6930**	**105.6930**	**0.0242**	**0.0000**	**106.2984**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.5513	0.1406	1.2000e-003	0.0297	3.6100e-003	0.0333	8.5600e-003	3.4500e-003	0.0120	0.0000	115.9346	115.9346	8.1400e-003	0.0000	116.1379
Worker	0.0870	0.0694	0.7542	2.0400e-003	0.1981	1.5800e-003	0.1997	0.0526	1.4600e-003	0.0541	0.0000	184.2570	184.2570	5.7800e-003	0.0000	184.4015
Total	**0.1057**	**0.6207**	**0.8948**	**3.2400e-003**	**0.2278**	**5.1900e-003**	**0.2330**	**0.0612**	**4.9100e-003**	**0.0661**	**0.0000**	**300.1916**	**300.1916**	**0.0139**	**0.0000**	**300.5394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.3246	1.9774	1.1900e-003		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	111.8133	111.8133	0.0262	0.0000	112.4671
Total	**0.0173**	**0.3246**	**1.9774**	**1.1900e-003**		**4.6600e-003**	**4.6600e-003**		**4.6600e-003**	**4.6600e-003**	**0.0000**	**111.8133**	**111.8133**	**0.0262**	**0.0000**	**112.4671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.5513	0.1406	1.2000e-003	0.0297	3.6100e-003	0.0333	8.5600e-003	3.4500e-003	0.0120	0.0000	115.9346	115.9346	8.1400e-003	0.0000	116.1379
Worker	0.0870	0.0694	0.7542	2.0400e-003	0.1981	1.5800e-003	0.1997	0.0526	1.4600e-003	0.0541	0.0000	184.2570	184.2570	5.7800e-003	0.0000	184.4015
Total	**0.1057**	**0.6207**	**0.8948**	**3.2400e-003**	**0.2278**	**5.1900e-003**	**0.2330**	**0.0612**	**4.9100e-003**	**0.0661**	**0.0000**	**300.1916**	**300.1916**	**0.0139**	**0.0000**	**300.5394**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0647	0.6725	0.6542	1.0000e-003		0.0377	0.0377		0.0347	0.0347	0.0000	89.4566	89.4566	0.0283	0.0000	90.1642
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0647**	**0.6725**	**0.6542**	**1.0000e-003**		**0.0377**	**0.0377**		**0.0347**	**0.0347**	**0.0000**	**89.4566**	**89.4566**	**0.0283**	**0.0000**	**90.1642**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7700e-003	3.0100e-003	0.0327	9.0000e-005	8.5900e-003	7.0000e-005	8.6600e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.9886	7.9886	2.5000e-004	0.0000	7.9948
Total	**3.7700e-003**	**3.0100e-003**	**0.0327**	**9.0000e-005**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.9886**	**7.9886**	**2.5000e-004**	**0.0000**	**7.9948**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0147	0.1543	0.7552	1.0000e-003		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	89.4565	89.4565	0.0283	0.0000	90.1641
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0147**	**0.1543**	**0.7552**	**1.0000e-003**		**2.4800e-003**	**2.4800e-003**		**2.4800e-003**	**2.4800e-003**	**0.0000**	**89.4565**	**89.4565**	**0.0283**	**0.0000**	**90.1641**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7700e-003	3.0100e-003	0.0327	9.0000e-005	8.5900e-003	7.0000e-005	8.6600e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.9886	7.9886	2.5000e-004	0.0000	7.9948
Total	**3.7700e-003**	**3.0100e-003**	**0.0327**	**9.0000e-005**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.9886**	**7.9886**	**2.5000e-004**	**0.0000**	**7.9948**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2264					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2264**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0120	9.5700e-003	0.1041	2.8000e-004	0.0273	2.2000e-004	0.0276	7.2600e-003	2.0000e-004	7.4600e-003	0.0000	25.4246	25.4246	8.0000e-004	0.0000	25.4446
Total	**0.0120**	**9.5700e-003**	**0.1041**	**2.8000e-004**	**0.0273**	**2.2000e-004**	**0.0276**	**7.2600e-003**	**2.0000e-004**	**7.4600e-003**	**0.0000**	**25.4246**	**25.4246**	**8.0000e-004**	**0.0000**	**25.4446**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2264					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2264**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0120	9.5700e-003	0.1041	2.8000e-004	0.0273	2.2000e-004	0.0276	7.2600e-003	2.0000e-004	7.4600e-003	0.0000	25.4246	25.4246	8.0000e-004	0.0000	25.4446
Total	**0.0120**	**9.5700e-003**	**0.1041**	**2.8000e-004**	**0.0273**	**2.2000e-004**	**0.0276**	**7.2600e-003**	**2.0000e-004**	**7.4600e-003**	**0.0000**	**25.4246**	**25.4246**	**8.0000e-004**	**0.0000**	**25.4446**

3.8 Building Construction 2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0275	0.2461	0.2425	4.0000e-004		0.0153	0.0153		0.0148	0.0148	0.0000	34.4633	34.4633	4.5400e-003	0.0000	34.5768
Total	**0.0275**	**0.2461**	**0.2425**	**4.0000e-004**		**0.0153**	**0.0153**		**0.0148**	**0.0148**	**0.0000**	**34.4633**	**34.4633**	**4.5400e-003**	**0.0000**	**34.5768**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3804	0.0970	8.3000e-004	0.0205	2.4900e-003	0.0230	5.9100e-003	2.3800e-003	8.2900e-003	0.0000	79.9859	79.9859	5.6100e-003	0.0000	80.1262
Worker	0.0600	0.0479	0.5203	1.4100e-003	0.1367	1.0900e-003	0.1378	0.0363	1.0000e-003	0.0373	0.0000	127.1231	127.1231	3.9900e-003	0.0000	127.2227
Total	**0.0729**	**0.4282**	**0.6173**	**2.2400e-003**	**0.1572**	**3.5800e-003**	**0.1608**	**0.0422**	**3.3800e-003**	**0.0456**	**0.0000**	**207.1089**	**207.1089**	**9.6000e-003**	**0.0000**	**207.3489**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1200e-003	0.1392	0.2587	4.0000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	34.4632	34.4632	4.5400e-003	0.0000	34.5767
Total	**7.1200e-003**	**0.1392**	**0.2587**	**4.0000e-004**		**1.5700e-003**	**1.5700e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**34.4632**	**34.4632**	**4.5400e-003**	**0.0000**	**34.5767**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3804	0.0970	8.3000e-004	0.0205	2.4900e-003	0.0230	5.9100e-003	2.3800e-003	8.2900e-003	0.0000	79.9859	79.9859	5.6100e-003	0.0000	80.1262
Worker	0.0600	0.0479	0.5203	1.4100e-003	0.1367	1.0900e-003	0.1378	0.0363	1.0000e-003	0.0373	0.0000	127.1231	127.1231	3.9900e-003	0.0000	127.2227
Total	**0.0729**	**0.4282**	**0.6173**	**2.2400e-003**	**0.1572**	**3.5800e-003**	**0.1608**	**0.0422**	**3.3800e-003**	**0.0456**	**0.0000**	**207.1089**	**207.1089**	**9.6000e-003**	**0.0000**	**207.3489**

B-2 Project Operational Emissions

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Project Solid Waste Disposal Rates

Land Use	Project Units	Solid Waste Factor [a] (lbs/unit/day)	Solid Waste Before Diversion (tons/year)	Diversion Rate [b] (%)	Solid Waste After Diversion
Residential	210 DU	12.23	468.7	76%	112.5
Hotel [c]	156 DU	4	113.9	76%	27.3
Commercial/Restaurant	12.5 KSF	5	11.4	76%	2.7
Total Project					**142.6**

Notes:

a. Generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 2017.

b. City of Los Angeles, Zero Waste Progress Report, (March 2013) 3. According to the Report, the City achieved a landfill diversion rate of approximately 76% by year 2012.

c. Hotel suites count as 2 rooms. The hotel proposes to include 20 suites; therefore, the total number of rooms for solid waste generation purposes is 116 + 2*20 = 156.

Source: ESA 2017.

Project Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 West Yucca Street Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Project Water Demand Rates

Land Use	Units (DU, Rooms, or 1000 sqft)	Wastewater Generation [a] (gal/unit/day)	Water Demand [b] (120% factor) (gal/day)	Indoor Water Demand Rate (gal/year)	Outdoor Water Demand Rate (gal/year)	Indoor Water Reduction (%)	Reduced Indoor Water Demand Rate (gal/year)	Outdoor Water Reduction (%)	Reduced Outdoor Water Demand Rate (gal/year)
Multi-Family Residential	210		33,336	10,139,700	2,027,940	20%	8,111,760	20%	1,622,352
Studio	-	*75*	-						
One Bedroom	*104*	*110*	*13,728*						
Two Bedroom	*95*	*150*	*17,100*						
Three Bedroom	*11*	*190*	*2,508*						
Hotel [c]	156	120	22,464	6,832,800	1,366,560	20%	5,466,240	20%	1,093,248
Restaurant (seats)	509	30	18,324	5,573,550	1,114,710	20%	4,458,840	20%	891,768
Retail	3.45	25	104	31,481	6,296	20%	25,185	20%	5,037
Open Space (Bar/Public Table Area)	0.92	720	795	241,776	48,355	20%	193,421	20%	38,684
Spa (Fitness)	3.85	650	3,003	913,413	182,683	20%	730,730	20%	146,146
Parking Structure	189.71	20	4,553	-	1,661,816	-	-	20%	1,329,453
Total Water Demand				**23,732,720**	**6,408,360**		**18,986,176**		**5,126,688**

Notes:

a. Wastewater generation factors obtained from City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR), dated January 10, 2017 and based on Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories, dated April 6, 2012. These factors do not account for water saving features incorporated into the Project.

b. Water demand rates are calculated based on the wastewater generation rates and increasing the factor by 20% to account for absorption, evaporation, consumption, irrigation, and other losses.

c. Hotel suites count as 2 rooms. The hotel proposes to include 20 suites; therefore, the total number of rooms for water demand purposes is 116 + 2*20 = 156.

Source: Southland Civil Engineering & Survey, LLP 2017; ESA 2017.

Project Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 W Yucca Street Project

Air Quality and Greenhouse Gas Assessment

Title 24 Energy Savings Adjustment

Project Energy Use Factors Adjustment

Nonresidential % savings over Title 24 (2013) =	5.0%
Residential % savings over Title 24 (2013) =	28.0%

	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
Title 24 (2013 - CalEEMod Default)					
Project Nonresidential Land Uses					
City Park [1]	-	-	2.63	-	-
Enclosed Parking with Elevator	3.92	0.19	2.63	-	-
Health Club	2.36	5.75	3.20	13.71	4.45
Hotel	2.68	2.89	2.20	20.02	4.06
Quality Restaurant	8.50	28.16	8.13	43.19	187.78
Recreational Swimming Pool [2]	-	-	3.20	13.71	-
Strip Mall	4.20	3.23	6.43	1.16	0.49
Unenclosed Parking with Elevator	-	0.19	2.63	-	-
Project Residential Land Uses					
Apartment High Rise	194.04	3,277.06	741.44	6,328.91	4,831.00
Title 24 (2016)					
Project Nonresidential Land Uses					
City Park [1]	-	-	2.50	-	-
Enclosed Parking with Elevator	3.72	0.19	2.50	-	-
Health Club	2.24	5.75	3.04	13.02	4.45
Hotel	2.55	2.89	2.09	19.02	4.06
Quality Restaurant	8.08	28.16	7.72	41.03	187.78
Recreational Swimming Pool [2]	-	-	3.04	13.02	-
Strip Mall	3.99	3.23	6.11	1.10	0.49
Unenclosed Parking with Elevator	-	0.19	2.50	-	-
Project Residential Land Uses					
Apartment High Rise	139.71	3,277.06	533.84	4,556.82	4,831.00

Notes:

1. CalEEMod does not provide energy rates for city park land use. For the purposes of this assessment, lighting electricity for city park (i.e., open space) assumed to be equivalent to parking electricity lighting demand.
2. CalEEMod does not provide energy rates for recreational swimming pool land use. For the purposes of this assessment, lighting electricity and T24 natural gas for the pool is assumed to be equivalent to health club electricity lighting and T24 natural gas demand.

Sources:

California Emissions Estimator Model (CalEEMod), version 2016.3.1.

California Energy Commission, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015. Available: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf. Accessed December 2016.

6220 W Yucca Street Project - Operations (Initial Year) - Area, Energy, Water, Waste

South Coast Air Basin, Annual

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	595	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Woodstoves - Assumes residential units equipped with natural gas hearths (210 DU) (SCAQMD Rule 445).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix.

Area Mitigation -

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10

tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	178.50	210.00
tblFireplaces	NumberNoFireplace	21.00	0.00
tblFireplaces	NumberWood	10.50	0.00
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00
tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	595
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	96.60	112.50

tblSolidWaste	SolidWasteGenerationRate	0.05	0.00
tblSolidWaste	SolidWasteGenerationRate	14.42	0.00
tblSolidWaste	SolidWasteGenerationRate	74.46	27.30
tblSolidWaste	SolidWasteGenerationRate	8.26	0.00
tblSolidWaste	SolidWasteGenerationRate	27.59	0.00
tblSolidWaste	SolidWasteGenerationRate	3.62	2.70
tblTripsAndVMT	HaulingTripNumber	227.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,200.00
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00
tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00
tblWoodstoves	NumberCatalytic	10.50	0.00
tblWoodstoves	NumberNoncatalytic	10.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	1,078.9248	1,078.9248	0.0431	0.0135	1,084.0329
Waste						0.0000	0.0000		0.0000	0.0000	28.9262	0.0000	28.9262	1.7095	0.0000	71.6635
Water						0.0000	0.0000		0.0000	0.0000	6.0234	82.0934	88.1169	0.6227	0.0154	108.2834

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	1,056.1329	1,056.1329	0.0422	0.0132	1,061.1311
Waste						0.0000	0.0000		0.0000	0.0000	28.9262	0.0000	28.9262	1.7095	0.0000	71.6635
Water						0.0000	0.0000		0.0000	0.0000	6.0234	82.0934	88.1169	0.6227	0.0154	108.2834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	743.3566	743.3566	0.0362	7.5000e-003	746.4961
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	758.2614	758.2614	0.0370	7.6500e-003	761.4639
NaturalGas Mitigated	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	312.7763	312.7763	5.9900e-003	5.7300e-003	314.6350
NaturalGas Unmitigated	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	320.6634	320.6634	6.1500e-003	5.8800e-003	322.5690

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	223.9062	0.0109	2.2600e-003	224.8519
City Park	46337.5	12.5059	6.1000e-004	1.3000e-004	12.5587
Enclosed Parking with Elevator	571913	154.3522	7.5200e-003	1.5600e-003	155.0041
Health Club	27905.9	7.5315	3.7000e-004	8.0000e-005	7.5633
Hotel	604923	163.2610	7.9600e-003	1.6500e-003	163.9506
Quality Restaurant	397838	107.3715	5.2300e-003	1.0800e-003	107.8250
Recreational Swimming Pool	14713.6	3.9710	1.9000e-004	4.0000e-005	3.9878
Strip Mall	45988.5	12.4117	6.0000e-004	1.3000e-004	12.4641
Unenclosed Parking with	270299	72.9504	3.5600e-003	7.4000e-004	73.2585
Total		**758.2614**	**0.0370**	**7.6700e-003**	**761.4639**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	217.4937	0.0106	2.1900e-003	218.4123
City Park	46337.5	12.5059	6.1000e-004	1.3000e-004	12.5587
Enclosed Parking with Elevator	555318	149.8733	7.3000e-003	1.5100e-003	150.5063
Health Club	27622.5	7.4550	3.6000e-004	8.0000e-005	7.4865
Hotel	594680	160.4966	7.8200e-003	1.6200e-003	161.1745
Quality Restaurant	394182	106.3847	5.1900e-003	1.0700e-003	106.8340
Recreational Swimming Pool	14713.6	3.9710	1.9000e-004	4.0000e-005	3.9878
Strip Mall	45300.2	12.2260	6.0000e-004	1.2000e-004	12.2776
Unenclosed Parking with Elevator	270299	72.9504	3.5600e-003	7.4000e-004	73.2585
Total		**743.3566**	**0.0362**	**7.5000e-003**	**746.4961**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Unmitigated	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1000e-003	0.0435	0.0185	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4288	50.4288	9.7000e-004	9.2000e-004	50.7285
Landscaping	0.0665	0.0251	2.1780	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5523	3.5523	3.4700e-003	0.0000	3.6390
Total	**1.5110**	**0.0687**	**2.1965**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**53.9811**	**53.9811**	**4.4400e-003**	**9.2000e-004**	**54.3675**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1000e-003	0.0435	0.0185	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4288	50.4288	9.7000e-004	9.2000e-004	50.7285
Landscaping	0.0665	0.0251	2.1780	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5523	3.5523	3.4700e-003	0.0000	3.6390
Total	**1.5110**	**0.0687**	**2.1965**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**53.9811**	**53.9811**	**4.4400e-003**	**9.2000e-004**	**54.3675**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	88.1169	0.6227	0.0154	108.2834
Unmitigated	88.1169	0.6227	0.0154	108.2834

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	35.9444	0.2660	6.5800e-003	44.5533
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.8748	9.0000e-005	2.0000e-005	1.8828
Health Club	0.193421 / 0.038684	0.8571	6.3400e-003	1.6000e-004	1.0624
Hotel	5.46624 / 1.09325	24.2217	0.1792	4.4300e-003	30.0230
Quality Restaurant	4.45884 / 0.891768	19.7578	0.1462	3.6200e-003	24.4899
Recreational Swimming Pool	0.73073 / 0.146146	3.2380	0.0240	5.9000e-004	4.0135
Strip Mall	0.025185 / 0.005037	0.1116	8.3000e-004	2.0000e-005	0.1383
Unenclosed Parking with Elevator	0 / 0.704185	2.1115	1.0000e-004	2.0000e-005	2.1204
Total		**88.1169**	**0.6227**	**0.0154**	**108.2834**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	35.9444	0.2660	6.5800e-003	44.5533
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.8748	9.0000e-005	2.0000e-005	1.8828
Health Club	0.193421 / 0.038684	0.8571	6.3400e-003	1.6000e-004	1.0624
Hotel	5.46624 / 1.09325	24.2217	0.1792	4.4300e-003	30.0230
Quality Restaurant	4.45884 / 0.891768	19.7578	0.1462	3.6200e-003	24.4899
Recreational Swimming Pool	0.73073 / 0.146146	3.2380	0.0240	5.9000e-004	4.0135
Strip Mall	0.025185 / 0.005037	0.1116	8.3000e-004	2.0000e-005	0.1383
Unenclosed Parking with Elevator	0 / 0.704185	2.1115	1.0000e-004	2.0000e-005	2.1204
Total		**88.1169**	**0.6227**	**0.0154**	**108.2834**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.9262	1.7095	0.0000	71.6635
Unmitigated	28.9262	1.7095	0.0000	71.6635

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	112.5	22.8365	1.3496	0.0000	56.5764
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	27.3	5.5417	0.3275	0.0000	13.7292
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.7	0.5481	0.0324	0.0000	1.3578
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9262**	**1.7095**	**0.0000**	**71.6635**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	112.5	22.8365	1.3496	0.0000	56.5764
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	27.3	5.5417	0.3275	0.0000	13.7292
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.7	0.5481	0.0324	0.0000	1.3578
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9262**	**1.7095**	**0.0000**	**71.6635**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

6220 W Yucca Street Project - Operations (2024) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2024
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	533	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 40% RPS by 2024.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	533
tblProjectCharacteristics	OperationalYear	2018	2024
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	999.9127	999.9127	0.0431	0.0135	1,005.0208
Water						0.0000	0.0000		0.0000	0.0000	6.0234	73.5392	79.5626	0.6227	0.0154	99.7291

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	978.6739	978.6739	0.0422	0.0132	983.6721
Water						0.0000	0.0000		0.0000	0.0000	6.0234	73.5392	79.5626	0.6227	0.0154	99.7291

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	665.8976	665.8976	0.0362	7.5000e-003	669.0371
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	679.2493	679.2493	0.0370	7.6500e-003	682.4518

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	200.5748	0.0109	2.2600e-003	201.5205
City Park	46337.5	11.2028	6.1000e-004	1.3000e-004	11.2556
Enclosed Parking with Elevator	571913	138.2684	7.5200e-003	1.5600e-003	138.9203
Health Club	27905.9	6.7467	3.7000e-004	8.0000e-005	6.7785
Hotel	604923	146.2489	7.9600e-003	1.6500e-003	146.9385
Quality Restaurant	397838	96.1832	5.2300e-003	1.0800e-003	96.6367
Recreational Swimming Pool	14713.6	3.5572	1.9000e-004	4.0000e-005	3.5740
Strip Mall	45988.5	11.1184	6.0000e-004	1.3000e-004	11.1708
Unenclosed Parking with Elevator	270299	65.3488	3.5600e-003	7.4000e-004	65.6569
Total		**679.2493**	**0.0370**	**7.6700e-003**	**682.4518**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	194.8305	0.0106	2.1900e-003	195.7490
City Park	46337.5	11.2028	6.1000e-004	1.3000e-004	11.2556
Enclosed Parking with Elevator	555318	134.2562	7.3000e-003	1.5100e-003	134.8892
Health Club	27622.5	6.6782	3.6000e-004	8.0000e-005	6.7096
Hotel	594680	143.7726	7.8200e-003	1.6200e-003	144.4505
Quality Restaurant	394182	95.2993	5.1900e-003	1.0700e-003	95.7486
Recreational Swimming Pool	14713.6	3.5572	1.9000e-004	4.0000e-005	3.5740
Strip Mall	45300.2	10.9520	6.0000e-004	1.2000e-004	11.0036
Unenclosed Parking with Elevator	270299	65.3488	3.5600e-003	7.4000e-004	65.6569
Total		**665.8976**	**0.0362**	**7.5000e-003**	**669.0371**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	79.5626	0.6227	0.0154	99.7291
Unmitigated	79.5626	0.6227	0.0154	99.7291

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	32.4671	0.2660	6.5800e-003	41.0760
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.6795	9.0000e-005	2.0000e-005	1.6874
Health Club	0.193421 / 0.038684	0.7742	6.3400e-003	1.6000e-004	0.9794
Hotel	5.46624 / 1.09325	21.8785	0.1792	4.4300e-003	27.6797
Quality Restaurant	4.45884 / 0.891768	17.8464	0.1462	3.6200e-003	22.5785
Recreational Swimming Pool	0.73073 / 0.146146	2.9247	0.0240	5.9000e-004	3.7002
Strip Mall	0.025185 / 0.005037	0.1008	8.3000e-004	2.0000e-005	0.1275
Unenclosed Parking with Elevator	0 / 0.704185	1.8915	1.0000e-004	2.0000e-005	1.9004
Total		**79.5626**	**0.6227**	**0.0154**	**99.7291**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	32.4671	0.2660	6.5800e-003	41.0760
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.6795	9.0000e-005	2.0000e-005	1.6874
Health Club	0.193421 / 0.038684	0.7742	6.3400e-003	1.6000e-004	0.9794
Hotel	5.46624 / 1.09325	21.8785	0.1792	4.4300e-003	27.6797
Quality Restaurant	4.45884 / 0.891768	17.8464	0.1462	3.6200e-003	22.5785
Recreational Swimming Pool	0.73073 / 0.146146	2.9247	0.0240	5.9000e-004	3.7002
Strip Mall	0.025185 / 0.005037	0.1008	8.3000e-004	2.0000e-005	0.1275
Unenclosed Parking with Elevator	0 / 0.704185	1.8915	1.0000e-004	2.0000e-005	1.9004
Total		**79.5626**	**0.6227**	**0.0154**	**99.7291**

6220 W Yucca Street Project - Operations (2027) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	488	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 45% RPS by 2027.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	488
tblProjectCharacteristics	OperationalYear	2018	2027
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	942.5652	942.5652	0.0431	0.0135	947.6733
Water						0.0000	0.0000		0.0000	0.0000	6.0234	67.3304	73.3538	0.6227	0.0154	93.5204

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	922.4536	922.4536	0.0422	0.0132	927.4519
Water						0.0000	0.0000		0.0000	0.0000	6.0234	67.3304	73.3538	0.6227	0.0154	93.5204

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	609.6773	609.6773	0.0362	7.5000e-003	612.8169
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	621.9018	621.9018	0.0370	7.6500e-003	625.1043

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	183.6407	0.0109	2.2600e-003	184.5864
City Park	46337.5	10.2570	6.1000e-004	1.3000e-004	10.3098
Enclosed Parking with Elevator	571913	126.5947	7.5200e-003	1.5600e-003	127.2466
Health Club	27905.9	6.1771	3.7000e-004	8.0000e-005	6.2089
Hotel	604923	133.9015	7.9600e-003	1.6500e-003	134.5910
Quality Restaurant	397838	88.0627	5.2300e-003	1.0800e-003	88.5162
Recreational Swimming Pool	14713.6	3.2569	1.9000e-004	4.0000e-005	3.2737
Strip Mall	45988.5	10.1797	6.0000e-004	1.3000e-004	10.2321
Unenclosed Parking with Elevator	270299	59.8316	3.5600e-003	7.4000e-004	60.1397
Total		**621.9018**	**0.0370**	**7.6700e-003**	**625.1043**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	178.3814	0.0106	2.1900e-003	179.2999
City Park	46337.5	10.2570	6.1000e-004	1.3000e-004	10.3098
Enclosed Parking with Elevator	555318	122.9213	7.3000e-003	1.5100e-003	123.5543
Health Club	27622.5	6.1143	3.6000e-004	8.0000e-005	6.1458
Hotel	594680	131.6342	7.8200e-003	1.6200e-003	132.3121
Quality Restaurant	394182	87.2534	5.1900e-003	1.0700e-003	87.7027
Recreational Swimming Pool	14713.6	3.2569	1.9000e-004	4.0000e-005	3.2737
Strip Mall	45300.2	10.0273	6.0000e-004	1.2000e-004	10.0790
Unenclosed Parking with Elevator	270299	59.8316	3.5600e-003	7.4000e-004	60.1397
Total		**609.6773**	**0.0362**	**7.5000e-003**	**612.8169**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	73.3538	0.6227	0.0154	93.5204
Unmitigated	73.3538	0.6227	0.0154	93.5204

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	29.9433	0.2660	6.5800e-003	38.5521
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.5377	9.0000e-005	2.0000e-005	1.5456
Health Club	0.193421 / 0.038684	0.7140	6.3400e-003	1.6000e-004	0.9193
Hotel	5.46624 / 1.09325	20.1777	0.1792	4.4300e-003	25.9790
Quality Restaurant	4.45884 / 0.891768	16.4591	0.1462	3.6200e-003	21.1912
Recreational Swimming Pool	0.73073 / 0.146146	2.6974	0.0240	5.9000e-004	3.4729
Strip Mall	0.025185 / 0.005037	0.0930	8.3000e-004	2.0000e-005	0.1197
Unenclosed Parking with Elevator	0 / 0.704185	1.7318	1.0000e-004	2.0000e-005	1.7407
Total		**73.3538**	**0.6227**	**0.0154**	**93.5204**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	29.9433	0.2660	6.5800e-003	38.5521
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.5377	9.0000e-005	2.0000e-005	1.5456
Health Club	0.193421 / 0.038684	0.7140	6.3400e-003	1.6000e-004	0.9193
Hotel	5.46624 / 1.09325	20.1777	0.1792	4.4300e-003	25.9790
Quality Restaurant	4.45884 / 0.891768	16.4591	0.1462	3.6200e-003	21.1912
Recreational Swimming Pool	0.73073 / 0.146146	2.6974	0.0240	5.9000e-004	3.4729
Strip Mall	0.025185 / 0.005037	0.0930	8.3000e-004	2.0000e-005	0.1197
Unenclosed Parking with Elevator	0 / 0.704185	1.7318	1.0000e-004	2.0000e-005	1.7407
Total		**73.3538**	**0.6227**	**0.0154**	**93.5204**

6220 W Yucca Street Project - Operations (2030) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2030
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	444	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 50% RPS by 2030.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	444
tblProjectCharacteristics	OperationalYear	2018	2030
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	886.4921	886.4921	0.0431	0.0135	891.6002
Water						0.0000	0.0000		0.0000	0.0000	6.0234	61.2596	67.2831	0.6227	0.0154	87.4496

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	867.4827	867.4827	0.0422	0.0132	872.4810
Water						0.0000	0.0000		0.0000	0.0000	6.0234	61.2596	67.2831	0.6227	0.0154	87.4496

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	554.7064	554.7064	0.0362	7.5000e-003	557.8460
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	565.8286	565.8286	0.0370	7.6500e-003	569.0312

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.777773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	167.0830	0.0109	2.2600e-003	168.0286
City Park	46337.5	9.3321	6.1000e-004	1.3000e-004	9.3850
Enclosed Parking with Elevator	571913	115.1804	7.5200e-003	1.5600e-003	115.8323
Health Club	27905.9	5.6201	3.7000e-004	8.0000e-005	5.6519
Hotel	604923	121.8284	7.9600e-003	1.6500e-003	122.5179
Quality Restaurant	397838	80.1226	5.2300e-003	1.0800e-003	80.5761
Recreational Swimming Pool	14713.6	2.9633	1.9000e-004	4.0000e-005	2.9800
Strip Mall	45988.5	9.2619	6.0000e-004	1.3000e-004	9.3143
Unenclosed Parking with Elevator	270299	54.4369	3.5600e-003	7.4000e-004	54.7450
Total		**565.8286**	**0.0370**	**7.6700e-003**	**569.0312**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	162.2978	0.0106	2.1900e-003	163.2164
City Park	46337.5	9.3321	6.1000e-004	1.3000e-004	9.3850
Enclosed Parking with Elevator	555318	111.8382	7.3000e-003	1.5100e-003	112.4712
Health Club	27622.5	5.5630	3.6000e-004	8.0000e-005	5.5945
Hotel	594680	119.7656	7.8200e-003	1.6200e-003	120.4434
Quality Restaurant	394182	79.3863	5.1900e-003	1.0700e-003	79.8356
Recreational Swimming Pool	14713.6	2.9633	1.9000e-004	4.0000e-005	2.9800
Strip Mall	45300.2	9.1232	6.0000e-004	1.2000e-004	9.1749
Unenclosed Parking with Elevator	270299	54.4369	3.5600e-003	7.4000e-004	54.7450
Total		**554.7064**	**0.0362**	**7.5000e-003**	**557.8460**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	67.2831	0.6227	0.0154	87.4496
Unmitigated	67.2831	0.6227	0.0154	87.4496

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	27.4755	0.2660	6.5800e-003	36.0844
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.3990	9.0000e-005	2.0000e-005	1.4070
Health Club	0.193421 / 0.038684	0.6551	6.3400e-003	1.6000e-004	0.8604
Hotel	5.46624 / 1.09325	18.5148	0.1792	4.4300e-003	24.3160
Quality Restaurant	4.45884 / 0.891768	15.1026	0.1462	3.6200e-003	19.8347
Recreational Swimming Pool	0.73073 / 0.146146	2.4751	0.0240	5.9000e-004	3.2506
Strip Mall	0.025185 / 0.005037	0.0853	8.3000e-004	2.0000e-005	0.1120
Unenclosed Parking with Elevator	0 / 0.704185	1.5756	1.0000e-004	2.0000e-005	1.5845
Total		**67.2831**	**0.6227**	**0.0154**	**87.4496**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	27.4755	0.2660	6.5800e-003	36.0844
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.3990	9.0000e-005	2.0000e-005	1.4070
Health Club	0.193421 / 0.038684	0.6551	6.3400e-003	1.6000e-004	0.8604
Hotel	5.46624 / 1.09325	18.5148	0.1792	4.4300e-003	24.3160
Quality Restaurant	4.45884 / 0.891768	15.1026	0.1462	3.6200e-003	19.8347
Recreational Swimming Pool	0.73073 / 0.146146	2.4751	0.0240	5.9000e-004	3.2506
Strip Mall	0.025185 / 0.005037	0.0853	8.3000e-004	2.0000e-005	0.1120
Unenclosed Parking with Elevator	0 / 0.704185	1.5756	1.0000e-004	2.0000e-005	1.5845
Total		**67.2831**	**0.6227**	**0.0154**	**87.4496**

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Solar Photovoltaic Panel Electricity Demand

Land Use [a]	Electricity Demand kilowatt-hours/year		Reduced Demand with Solar Photovoltaics	
Apartments High Rise	805,868.0	→	758,390.0	94.11%
City Park	46,337.5			
Enclosed Parking with Elevator	555,318.0			
Health Club	27,622.5			
Hotel	594,680.0			
Quality Restaurant	394,182.0			
Recreational Swimming Pool	14,713.6			
Strip Mall	45,300.2			
Unenclosed Parking with Elevator	270,299.0			
	2,754,321			
Solar 30 kW Photovoltaics [b]	47,478			
Percent of Project Total	1.72%			

Notes:

a. Project electricity demand estimated from CalEEMod (2016.3.1)

b. Electricity provided by 30 kW Photovoltaics based on data from U.S. Department of Energy, National Renewable Energy Laboratory, PVWatts Calculator, http://pvwatts.nrel.gov/pvwatts.php.

NREL
NATIONAL RENEWABLE ENERGY LABORATORY

Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at http://sam.nrel.gov) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

Disclaimer: The PVWatts® Model ("Model") is provided by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC ("Alliance") for the U.S. Department Of Energy ("DOE") and may be used for any purpose whatsoever.

The names DOE/NREL/ALLIANCE shall not be used in any representation, advertising, publicity or other manner whatsoever to endorse or promote any entity that adopts or uses the Model. DOE/NREL/ALLIANCE shall not provide

any support, consulting, training or assistance of any kind with regard to the use of the Model or any updates, revisions or new versions of the Model.

YOU AGREE TO INDEMNIFY DOE/NREL/ALLIANCE, AND ITS AFFILIATES, OFFICERS, AGENTS, AND EMPLOYEES AGAINST ANY CLAIM OR DEMAND, INCLUDING REASONABLE ATTORNEYS' FEES, RELATED TO YOUR USE, RELIANCE, OR ADOPTION OF THE MODEL FOR ANY PURPOSE WHATSOEVER. THE MODEL IS PROVIDED BY DOE/NREL/ALLIANCE "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. IN NO EVENT SHALL DOE/NREL/ALLIANCE BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO CLAIMS ASSOCIATED WITH THE LOSS OF DATA OR PROFITS, WHICH MAY RESULT FROM ANY ACTION IN CONTRACT, NEGLIGENCE OR OTHER TORTIOUS CLAIM THAT ARISES OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE MODEL.

The energy output range is based on analysis of 30 years of historical weather data for nearby , and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

47,478 kWh per Year *

System output may range from 45,232 to 48,470kWh per year near this location.

Month	Solar Radiation (kWh / m^2 / day)	AC Energy (kWh)	Energy Value ($)
January	3.93	2,915	371
February	4.91	3,291	419
March	5.45	4,029	513
April	6.14	4,356	555
May	6.56	4,781	609
June	6.64	4,666	594
July	6.92	4,984	635
August	6.88	4,926	628
September	5.71	3,955	504
October	5.07	3,681	469
November	4.32	3,058	390
December	3.88	2,835	361
Annual	**5.53**	**47,477**	**$ 6,048**

Location and Station Identification

Requested Location	6220 Yucca Street, Los Angeles, CA
Weather Data Source	(TMY2) LOS ANGELES, CA 13 mi
Latitude	33.93° N
Longitude	118.4° W

PV System Specifications *(Commercial)*

DC System Size	30 kW
Module Type	Standard
Array Type	Fixed (open rack)
Array Tilt	20°
Array Azimuth	180°
System Losses	14%
Inverter Efficiency	96%
DC to AC Size Ratio	1.1

Economics

Average Cost of Electricity Purchased from Utility	0.13 $/kWh

Performance Metrics

Capacity Factor	18.1%

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Project Operational Emissions - Emergency Generator

Standby Emergency Generator			
Rating:	250	kW	*(kW, HP rating reflect total sitewide need)*
	335	HP	*(conversion from kW to hp)*
Load Factor:	0.74		*(based on CalEEMod Generator Set Load Factor)*
Engine Emissions Tier:	Tier 4		*(compliance with CARB diesel regulations)*
Number of Units:	1		*(kW, HP rating reflect total sitewide need)*
Operating Hours per Unit:	2	hours/day	*(testing/maintenance)*
	50	hours/year	*(testing/maintenance, Regulatory Limit per SCAQMD Rule 1470)*

Emergency Generator Emissions

Units	Greenhouse Gases [1]	
	CO_2	CO_2e
g/HP-hr	526.17	531.48
lbs/hr	287.56	290.47
lbs/day	575.13	580.94
lbs/yr	14,378.20	14,523.43
tons/yr	7.19	7.26
metric tons/yr	6.52	6.59

Notes:

1. Emission factor for CO_2: U.S. Environmental Protection Agency, *AP-42 Compilation of Air Pollutant Emission Factors* , Fifth Edition, Section 3.4, Table 3.4-1. Emissions of GHGs assume 99% of the CO_2e emissions occur as CO_2, which is typical for off-road diesel engines.

Source: ESA PCR, 2017

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	GHG Emission Factors (metric tons/mile)			
Year	**CO2**	**CH4**	**N2O**	**CO2e**
	1	*25*	*298*	
2015	4.83E-04	3.12E-08	-	4.84E-04
2018	4.51E-04	2.39E-08	-	4.52E-04
2021	4.17E-04	1.90E-08	-	4.18E-04
2022	4.06E-04	1.78E-08	-	4.06E-04
2023	3.92E-04	1.66E-08	-	3.93E-04
2024	3.82E-04	1.58E-08	-	3.83E-04
2025	3.71E-04	1.50E-08	-	3.71E-04
2026	3.61E-04	1.42E-08	-	3.61E-04
2027	3.52E-04	1.36E-08	-	3.52E-04
2028	3.45E-04	1.31E-08	-	3.45E-04
2029	3.38E-04	1.26E-08	-	3.38E-04
2030	3.32E-04	1.22E-08	-	3.32E-04
2031	3.27E-04	1.18E-08	-	3.28E-04
2032	3.23E-04	1.15E-08	-	3.23E-04
2033	3.19E-04	1.12E-08	-	3.19E-04
2034	3.16E-04	1.10E-08	-	3.16E-04
2035	3.13E-04	1.08E-08	-	3.14E-04
2036	3.11E-04	1.06E-08	-	3.12E-04
2037	3.10E-04	1.04E-08	-	3.10E-04
2038	3.09E-04	1.03E-08	-	3.09E-04
2039	3.08E-04	1.02E-08	-	3.08E-04
2040	3.07E-04	1.01E-08	-	3.07E-04
2041	3.07E-04	1.00E-08	-	3.07E-04
2042	3.06E-04	9.94E-09	-	3.07E-04
2043	3.06E-04	9.89E-09	-	3.06E-04
2044	3.06E-04	9.82E-09	-	3.07E-04
2045	3.06E-04	9.76E-09	-	3.07E-04
2046	3.07E-04	9.65E-09	-	3.07E-04
2047	3.07E-04	9.61E-09	-	3.07E-04
2048	3.07E-04	9.59E-09	-	3.08E-04
2049	3.08E-04	9.56E-09	-	3.08E-04
2050	3.08E-04	9.53E-09	-	3.09E-04

Source: EMFAC2014, South Coast Air Basin (Los Angeles County), "Emissions" (or "Burden") mode.

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Draft Environmental Impact Report
Greenhouse Gas Assessment

Scenario	Year	VMT/year	GHG Emission Factors (metric tons/year) CO2	CH4	N2O	CO2e
			1	*25*	*298*	
Project	2021	8,950,895	3,736.75	0.17	-	3,741
	2022	8,950,895	3,632.10	0.16	-	3,636
	2023	8,950,895	3,511.03	0.15	-	3,515
	2024	8,950,895	3,422.04	0.14	-	3,426
	2025	8,950,895	3,317.63	0.13	-	3,321
	2026	8,950,895	3,230.00	0.13	-	3,233
	2027	8,950,895	3,152.14	0.12	-	3,155
	2028	8,950,895	3,084.30	0.12	-	3,087
	2029	8,950,895	3,024.64	0.11	-	3,027
	2030	8,950,895	2,972.82	0.11	-	2,976
	2031	8,950,895	2,930.32	0.11	-	2,933
	2032	8,950,895	2,890.81	0.10	-	2,893
	2033	8,950,895	2,856.75	0.10	-	2,859
	2034	8,950,895	2,827.92	0.10	-	2,830
	2035	8,950,895	2,804.20	0.10	-	2,807
	2036	8,950,895	2,787.01	0.09	-	2,789
	2037	8,950,895	2,772.49	0.09	-	2,775
	2038	8,950,895	2,761.57	0.09	-	2,764
	2039	8,950,895	2,753.52	0.09	-	2,756
	2040	8,950,895	2,747.89	0.09	-	2,750
	2041	8,950,895	2,743.52	0.09	-	2,746
	2042	8,950,895	2,741.51	0.09	-	2,744
	2043	8,950,895	2,740.99	0.09	-	2,743
	2044	8,950,895	2,741.37	0.09	-	2,744
	2045	8,950,895	2,742.46	0.09	-	2,745
	2046	8,950,895	2,744.71	0.09	-	2,747
	2047	8,950,895	2,747.67	0.09	-	2,750
	2048	8,950,895	2,751.15	0.09	-	2,753
	2049	8,950,895	2,755.08	0.09	-	2,757
	2050	8,950,895	2,760.49	0.09	-	2,763

Source: ESA 2017

Appendix C

California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017

ESA

Attachment 2
Statewide Emission Factors for Use With AB 900 Projects

Mobile-Source Emissions

Project applicants under AB 900 may use default GHG emission factors (EFs) from the California Emissions Estimator Model (CalEEMod). However, ARB acknowledges that CalEEMod does not contain the latest mobile-source emissions reductions from State and federal regulations. If an AB 900 project applicant does not wish to use CalEEMod EFs, and the project's mobile sources include "all vehicle classifications," the EFs provided via the EMFAC2014 Web Database provide a quick and easy way to access commonly used emission rates data. The Web Database contains daily emissions and emission rates data for all areas, calendar years and seasons.

See https://www.arb.ca.gov/emfac/2014/.

Electricity Emissions

An AB 900 project applicant may use the local electric utility provider's EFs and electricity intensities for today's electric supply generation.

If an applicant would like to use an EF that represents the State's Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 pounds CO_2/MWh may be used[2]. This 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. It represents a generation supply mix of 67 percent natural gas-fueled combined cycle power plants, and 33 percent renewable energy. ARB believes this marginal profile represents new generation plans in any electric utility territory in California.

[2] LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm, based on analysis with CA-GREET model.

Exhibit 7 Applicant's Acknowledgement and Binding Agreement with the City of Los Angeles

February 21, 2017

Lisa Webber
Deputy Director of Planning
City of Los Angeles
200 N. Spring Street
Los Angeles, CA 90012

RE: Yucca Argyle Project: Acknowledgement of Obligations under Public Resources Code§ 21183(d), (e), and (f)

Dear Ms. Webber:

As you are aware, Riley Realty LP ("Applicant") has applied to the California Governor to request certification of the Yucca Argyle project (the "Project") as a Leadership Project subjected to streamlined environmental review pursuant to the Jobs and Economic Improvement through Environmental Leadership Act of 2011 (the "Act"), California Public Resource Code§ 21178 et seq as amended by SB 743 and SB 734. By this letter, Applicant acknowledges and agrees to its obligations under the Act as set forth at Public Resources Code§ 21183(d), (e), and (f).

As required by Public Resources Code§ 21183(d), Applicant agrees that all mitigation measures required pursuant to CEQA to certify the Project under the Act shall be conditions of approval, and those conditions will be fully enforceable by the City of Los Angeles (the "City") or another agency designated by the City. Applicant agrees that all environmental mitigation measures required to certify the Project under the Act will be monitored and enforced by the City for the life of the obligation.

As required by Public Resources Code§ 21183(e), Applicant agrees to pay the costs of the Court of Appeal in hearing and deciding any case, including payment of the costs for the appointment of a special master if deemed appropriate by the court, in a form and manner specified by the Judicial Council, as provided in the Rules of Court adopted by the Judicial Council pursuant to the Act.

As required by Public Resources Code§ 21183(f), Applicant agrees to pay the costs of preparing the administrative record for the Project, in a form and manner specified by the City, concurrent with review and consideration of the Project pursuant to CEQA and the Act.

Sincerely,

RILEY REALTY, L.P.,
a California limited partnership

By: Champion Enterprises, Inc.,
a Nevada corporation, General Partner

By: Champion Holdings, Inc.,
a California corporation, General Partner

By: _____
Robert D. Champion, President

Acknowledged and agreed by:

_____
Lisa Webber
City of Los Angeles – Deputy Director of Planning

5. Governor’s Determination of Eligibility

Executive Department

State of California

GOVERNOR'S CERTIFICATION GRANTING STREAMLINING FOR THE YUCCA ARGYLE PROJECT IN THE CITY OF LOS ANGELES

I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Jobs and Economic Improvement Act of 2011, Public Resources Code Section 21178 et seq., make the following determinations:

The Yucca Argyle Project, a $180 million dollar mixed use residential/commercial/hotel/restaurant redevelopment on a 1.16 acre site in Hollywood, will create new jobs, reduce energy usage and use clean energy, and promote infill development. A copy of the Project's Application, which contains information supporting this certification, is attached as Exhibit 1. All materials associated with this application are available online at http://opr.ca.gov/s_californiajobs.php.

1. Project Applicant: Riley Realty, L.P.

2. Project Description: A mixed use commercial/residential/hotel/restaurant project located at 6220 West Yucca Street, in Los Angeles, consisting of 210 multi-family units, 136 hotel rooms, and commercial/restaurant space, in two buildings. The project will redevelop a 1.16 acre site on in Hollywood in a highly urbanized area. Parking will be on site.

3. Lead Agency: City of Los Angeles

4. The project meets the criteria set forth in Public Resources Code section 21180(b)(1). It is

    a. A mixed use residential/commercial project;
    b. Designed to be eligible for LEED Silver certification;
    c. Designed to achieve a 10-percent greater standard for transportation efficiency than for comparable projects (see Ex. 2); and
    d. Located on an in-fill site.

5. The project is consistent with the Sustainable Communities Strategy for the Southern California region. (See Ex. 3.)

6. The size and scope of the project clearly establish that the project entails a minimum investment of $100 million in California through the time of completion of construction.

7. The project applicant has provided information establishing that the prevailing and living wage requirements of Public Resources Code section 21183(b) will be satisfied. (See Ex. 1, page 12.)

8. The project applicant has provided information establishing that the project will not result in any net additional greenhouse gas emissions, and the Deputy Executive Officer of the Air Resources Board has made the determination that the project does not result in any net additional greenhouse gas emissions. (See Application, and CARB Determination, dated June 15, 2017, attached as Ex. 4.)

9. The project applicant has provided documentation reflecting a binding agreement establishing the requirements set forth in Public Resources Code sections 21183(d), (e), and (f). (See Exhibit 5.) For this project, the applicant must ensure that the proposed travel demand management strategy (as set forth in the Project Application) is incorporated into the project or identified as mitigation for the project, and that the management strategy will be monitored and adjusted to ensure a ten percent reduction in motor vehicle trips.

Therefore, I hereby certify that the Yucca Argyle Project is an eligible project under the Jobs and Economic improvement Act of 2011, Public Resources Code Sections 21178 et seq.

EDMUND G. BROWN JR.
Governor of California

July 26, 2017

Application for Environmental Leadership Development Project

Riley Realty, L.P.

6220 West Yucca Street, Los Angeles, California 90028

April 2017



Application for Environmental Leadership Development Project

Project Title: Yucca Argyle

Project Applicant: Riley Realty, L.P.

Project Location: Los Angeles, California

Project Proposal

Riley Realty, L.P. (the Applicant) proposes to redevelop an approximately 1.16-acre (net area) property on the south side of West Yucca Street between Argyle Avenue and Vista Del Mar Avenue, generally referenced as 6220 West Yucca Street (project site), with a mixed-use residential, hotel, and commercial/restaurant project (the project). The property is located within the Hollywood community of the City of Los Angeles, and is currently improved with one single-family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas, all of which would be demolished and removed to allow development of the project. Overall, there are a total of 44 residential units currently on the project site.

The project would consist of two buildings, Buildings 1 and 2. Building 1 contains a mix of residential, hotel and commercial/restaurant uses, and Building 2 contains only residential uses. Each building would provide parking for its proposed uses. Overall, the project would include approximately 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors and shafts) within 210 multi-family residential units, approximately 57,740 net square-feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and approximately 12,500 square feet of commercial/restaurant uses. The total development would include approximately 316,948 net square feet of residential, hotel and commercial/restaurant uses for purposes of floor area calculations resulting in a floor-area ratio (FAR) of 6.3:1 averaged across the site. Parking for all proposed uses in Building 1 would be provided in 436 parking spaces within a six-level parking structure housed within the podium structure of Building 1. Parking for Building 2 would be provided in a two-level podium structure within the ground level and one subterranean level. The parking structure within Building 2 would include 23 parking spaces for residential uses.

Building 1 at the southeast corner of Yucca Street and Argyle Avenue would occupy the majority of the project site and include a six-level podium structure, which would include: two fully subterranean levels (P3 and P2 Levels); two semi-subterranean levels (P1 and L1 Levels – due to site's sloping topography); and two entirely above ground levels (L2 and L3 Levels). Atop Level 3 (the highest podium level), Building 1 would include Levels 4 through 20. Thus, Building 1 would be up to approximately 253 feet tall as measured from the P1 level along Argyle Avenue, the lowest surface point. Level 1 is considered herein as the Ground Level as it mostly fronts Yucca Street. From Yucca Street, Building 1 would be 20 stories tall. Building 1 would include a total of approximately 12,500 square feet of commercial/restaurant uses comprising 1,400 square feet of restaurant space at the corner of Argyle Avenue and Yucca Street, a ground-level 3,270 square foot restaurant space, a ground-level 3,450 square foot commercial space, and a

4,380 square foot restaurant/bar with outdoor dining on Level 4. Building 1 would also include approximately 57,740 net square feet of hotel floor area, which includes approximately 4,600 square feet of meeting space and 4,000 square feet back of house space on Level 1. There would be 136 hotel rooms located between Level 5 and Level 8 of Building 1. The hotel would include 116 rooms ranging from 390 to 555 square feet and 20 suites ranging from 615 to 745 square feet in size. Building 1 would also include 197 residential units, representing approximately 185,700 net square feet of residential space located within Level 4 and Levels 9 through 20. Building 1 would include 99 one-bedroom units, 88 two-bedroom units, and 10 suites. Four (4) suites would be located within Level 19 and the remaining six (6) suites would be located within Level 20. The one-bedroom units would range between 660 and 740 square feet, with the two-bedroom units ranging between 1,000 and 1,440 square feet. The suites would range between 1,130 square feet and 1,860 square feet.

Building 2, located at the southwest corner of Yucca Street and Vista Del Mar Avenue, would include three residential levels over a 2-story podium parking structure, which would include one subterranean parking level (P1 Level) and one ground parking level. Thus, Building 2 would be 4-stories above ground. Building 2 would include a lobby space and an enclosed trash recycling area on the Ground Level of the podium structure, in addition to residential parking. Four (4) residential flats and approximately 1,100 square feet of amenity space would occur on Level 2; five (5) residential units would occur on Level 3; and four (4) residential units would be on Level 4. Building 2 would include a total of five (5) one-bedroom units and eight (8) 2-bedroom units totaling approximately 12,050 square feet of residential unit space. The one-bedroom units would be approximately 700 square feet and the two-bedroom units would range between approximately 1,050 and 1,060 square feet.

Building 1 would include 7,350 square feet of private balconies. Building 2 would include amenity space on Level 2, including 250 square feet of private balconies. Building 1 would include an approximate 1,320 square-foot spa facility for hotel guests only on Level 4. The project would also include shared amenities between Building 1 and Building 2, including an approximate 2,530 square-foot gym, a 4,380 square-foot restaurant/bar with outdoor seating, a pool and spa deck, and a 10,770 square-foot podium courtyard on Level 4 to be shared by both hotel guests and residents. The courtyard would be equipped with lounge seats, gas fire pit, BBQ, and dining tables and chairs. Building 1 would further include a 3,520 square-foot pool/roof garden with a 920 square-foot bar on Level 20. Typically, pools would open from 6 am to approximately 11 pm.

The exterior boundaries of the project site along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue would include a streetscape design that would allow pedestrians, café tables, parkway planters, and bike parking as well as access to the porte-cochère. All of the open spaces areas would have extensive landscaping and well-detailed hardscape. Street trees would be planted along Yucca Street, Argyle Avenue and Vista Del Mar. The landscaping would be visible along the project edges and contribute positively to the appearance of the project as seen by passersbys on nearby roadways/sidewalks, and from higher elevations.

Project Site

The project site is located on the south side of West Yucca Street between Argyle Avenue and North Vista Del Mar Avenue (addresses: 1756, 1760 North Argyle Avenue; 6210-6224 West Yucca Street; and 1765, 1771, 1777, and 1779 North Vista Del Mar Avenue) in the Hollywood community of the City of Los Angeles, approximately five miles northwest of Downtown Los Angeles. The project site is bounded by Yucca Street, the Argyle Hotel Project construction site, and 3-story residential lofts to the north; North Vista Del Mar Avenue and 1- and 2-story single-family residences and duplexes to the east; vacant land (former Little Country Church of Hollywood) and 1- and 2-story single-family residences and duplexes followed by a 5-story mixed-use residential and commercial development to the south; and Argyle Avenue and commercial uses to the west.

The project vicinity is highly urbanized and generally built-out. The local vicinity is part of the active regional center of Hollywood with a mix of commercial, studio/production, office, entertainment, and residential uses. The project site is well served by a network of regional transportation facilities. Various public transit stops operated by the Los Angeles County Metropolitan Transportation Authority (Metro) are located in close proximity to the project site. The nearest Metro Red Line station at Hollywood Boulevard/Vine Street, is located approximately 0.13 miles southwest of the project site. The Hollywood Freeway (US Route 101) is approximately 200 feet north of the project site; Interstate 10 is approximately five miles to the south; Interstate 110 is approximately five miles to the southeast; Interstate 5 is approximately five miles to the east; State Route 134 is approximately five miles to the north; and Interstate 405 is approximately eight miles to the southwest. There are a number of historical resources located in the project vicinity, including the Capitol Records building to the west of the project site along Yucca Street, the vacant site of the former Little Country Church of Hollywood immediately south of the project site, and other resources located within the Vista Del Mar Avenue/Carlos Historic District.

The approximate 1.16-acre project site is improved with one single-family residence, one duplex and a studio apartment, and three, two-story apartment buildings (44 existing multi-family/apartment units total) and associated carports and paved surface parking areas. The three two-story apartment buildings located along Yucca Street have carport parking at the rear with driveway access from Yucca Street, as well as access to a separate fenced surface parking lot at the corner of Yucca Street and Vista Del Mar Avenue. The 3,118 square-foot apartment building on the corner of Yucca Street and Argyle Avenue includes eight (8) residential units. The two, 6,236 square-foot apartment buildings are located further to the east along Yucca Street and include 16 residential units each. The single-family residence and duplex with a detached garage and studio apartment over the garage are located on the project site and front on Vista Del Mar Avenue. Just south of the fenced surface parking lot on Vista Del Mar Avenue, is a 1,367 square-foot single-family residence built in 1920 (1771 North Vista Del Mar Avenue). Immediately adjacent and further to the south is a 2,942 square-foot duplex built in 1918 (1765 North Vista Del Mar Avenue) (a former single-family residence). Above the duplex's detached garage is an approximate 500 square foot studio apartment. The project site has been graded and is generally

flat, with the bordering Vista Del Mar Avenue and Argyle streets having topography that gently slopes downward from the north at Yucca Street to the south towards Carlos Avenue.

CONSISTENCY WITH STATUTORY REQUIREMENTS FOR CEQA STREAMLINING

This application was prepared in accordance with the Governor's Guidelines for Streamlining Judicial Review under the California Environmental Quality Act (CEQA), which is provided on the Governor's Office of Planning and Research Website (http://opr.ca.gov/s californiajobs.php).

The following information (in addition to all exhibits) is submitted to establish that the project satisfies the statutory requirements for CEQA streamlining as further informed by the criteria set forth in the Governor's Guidelines under California Public Resources Code Section 21178 et seq.

Information to show the project is residential, retail, commercial, sports, cultural, entertainment, or recreational in nature.

The project is a mixed-use development that is both residential and commercial in nature, located on property zoned Regional Center Commercial and Medium Residential. As previously stated, the project would include 210 multi-family residential units, 136 hotel rooms, and approximately 12,500 square feet of commercial/restaurant uses.

The residential space, consisting of 210 multi-family apartment units, distributed throughout the two buildings. Building 1 would include 99 one-bedroom units, 88 two-bedroom units, and 10 suites. Building 2 would include a total of five (5) one-bedroom units and eight (8) 2-bedroom units. The Applicant proposes various amenities, outdoor open spaces, and landscape treatments. Building 1 would include private balconies, a spa facility for hotel guests, a pool/roof garden, and a bar on Level 20. Shared amenities between Building 1 and Building 2 include a gym, restaurant/bar with outdoor seating, a pool and spa deck, and a courtyard with lounge seats, gas fire pit, BBQ, and dining tables and chairs.

The exterior boundaries of the project site along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue would include a streetscape design that would allow pedestrians, café tables, parkway planters, and bike parking as well as access to the porte-cochère. All of the open spaces areas would have extensive landscaping and well-detailed hardscape. Street trees would be planted along Yucca Street, Argyle Avenue and Vista Del Mar. The landscaping would be visible along the project edges and contribute positively to the appearance of the project as seen by passersbys on nearby roadways/sidewalks, and from higher elevations.

The commercial space, only present in Building 1, would consist of approximately 12,500 square feet of commercial/restaurant uses and 57,740 net square feet (or approximately 80,335 gross square feet) of hotel use with 136 hotel rooms and includes approximately 4,600 square feet of meeting space and 4,000 square feet back of house space on Level 1. The P1 Level would contain approximately 1,400 square feet of restaurant space at the corner of Argyle Avenue and Yucca Street, a ground-level 3,270 square foot restaurant space, a ground-level 3,450 square foot

commercial space, and an approximately 4,380 square foot restaurant/bar with outdoor dining on Level 4.

Proposed site plans for the project are attached as **Exhibit 1**. Renderings of the project are attached as **Exhibit 2**.

Information to show the project will qualify for LEED Silver Certification. The application shall specify those design elements that make the project eligible for LEED Silver Certification, and the applicant shall submit a binding commitment to delay operating the project until it receives LEED Silver Certification. If, upon completion of construction, LEED Silver Certification is delayed as a result of the certification process rather than a project deficiency, the applicant may petition the Governor to approve project operation pending completion of the certification process.

The project will encourage design and construction decisions that have the potential to reduce energy and water use, promote resource conservation through redevelopment and the sourcing of local construction materials and create healthier indoor environments. The project will achieve the United States Green Building Standards (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification under the LEED version 2009 (v3) or the Silver Certification under the LEED v4 rating system. Achieving LEED Gold Certification requires obtaining at least 60 points and Silver Certification requires obtaining at least 50 points satisfying eight categories, which can be organized into three overarching themes: Siting and Transportation, Building Performance, and Material Selection. The end result is a positive impact on resource conservation, the built environment, and the local community.

Siting, Transportation, and Mixed Use addresses preservation of undeveloped property by encouraging infill development, adaptive re-use of existing historic buildings, and facilitating pedestrian activity by integrating a diversity of uses and providing convenient access to public transportation. The Yucca Argyle project is located in a prime urban location close to transit, entertainment and employment and will integrate a range of commercial, retail and residential spaces arranged around public and private open spaces. The project will also be designed to incorporate heat island reduction strategies for 50 percent of hardscapes or provide 100 percent underground parking and incorporate heat island reduction strategies for 75 percent of roof areas.

The project's placement to the intersection of two main commute arterials of Hollywood Boulevard and Vine Street increases efficiencies to the siting and transportation in the area. The project is also located within a ¼-mile walking distance to multimodal transportation choices, including the existing Metro Red Line (Hollywood and Vine Station) and bus lines. Additionally, the project will provide short- and long-term bicycle parking and showers for bicycle commuters to facilitate "last mile" connectivity to transit options.

Lastly, alternatives to conventionally fueled automobiles will be promoted by providing 20 percent of parking spaces that shall be electric vehicle-ready with 5 percent equipped with electric

vehicle charging stations and preferred parking for alternative-fuel vehicles, low-emitting, and fuel-efficient and ride-sharing vehicles.

Building Performance emphasizes water and energy efficiency to maximize livability with reduced resource consumption. Consideration will be taken to select high-performance materials, fixtures and appliances to reduce energy demand by a minimum of 5 percent for energy efficiency, based on the California Title 24 (2016) Building Energy Efficiency Standards and water consumption by 35 percent for indoor water and 50 percent for outdoor water from the LEED or regional usage baseline. Additionally, a construction and demolition waste management plan will maximize the recycling or salvage of nonhazardous construction debris.

Material Selection attempts to reduce the building's life cycle impact through the selection of upcycled, recycled and locally sourced materials where feasible and also minimize exposure to environmental toxins by choosing low VOC materials. A few practices being considered are using refrigerants that minimize ozone depletion, using building materials with a minimum of 10 percent recycled-content by cost, using adhesives, sealants, paints, finishes, carpet, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air quality pollutants, and providing on-site recycling containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers during construction and after the building is occupied.

Green Building Measures: The project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the USGBC LEED Gold or Silver Certification. The project would incorporate measures and performance standards to support its LEED Gold or Silver Certification, which include but are not limited to the following:

The project would implement a construction waste management plan to recycle and/or salvage a minimum of 65 percent of nonhazardous construction debris or minimize the generation of construction waste to 2.5 pounds per square foot of building floor area.

The project would be designed to optimize energy performance and reduce building energy cost by a minimum of 5 percent for new construction compared to the Title 24 (2016) Building Standards Code.

The project would provide a minimum of 30 kilowatts of solar photovoltaic panels on the project site, unless additional kilowatts of photovoltaic panels become feasible due to additional area being added to the project site.

The project would reduce emissions through the use of grid-source, renewable energy technologies and carbon mitigation or offset projects. The project would enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (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 project's emissions attributable to such building in the project, as well as all previously

constructed buildings in the project and shall be calculated on a net present value basis for a 30-year useful life.

The project would reduce indoor water use by a minimum of 35 percent by installing water fixtures that exceed applicable standards and outdoor water use by 50 percent.

The GHG Emissions Offset Approach for the Yucca Argyle Project / Commitment Letter and LEED Measures, dated February 23, 2017, is attached as **Exhibit 3**.

Information to show the project will achieve at least 10 percent greater transportation efficiency than comparable projects. "Transportation efficiency" is defined as the number of vehicle trips by employees, visitors, or customers to the project divided by the total number of employees, visitors, and customers. The applicant shall provide information setting forth its basis for determining and evaluating comparable projects and their transportation efficiency, and how the project will achieve at least 10 percent greater transportation efficiency. For the purpose of this provision, comparable means a project of the same size, capacity and location.

The project is considered an "infill" project, as it is replacing existing residential uses with a high-density, mixed-use development.

The project is located in the Hollywood community of the City of Los Angeles (City) approximately 200 feet from the Hollywood Freeway (US 101), which provides regional transportation between downtown Los Angeles and the San Fernando Valley. It is also located approximately 600 feet from a major arterial corridor, Hollywood Boulevard. US 101 carries over 200,000 vehicles per day on an average weekday, and Hollywood Boulevard, designated as Avenue I in the City's *Mobility Plan 2035: An Element of the General Plan* (January 2016), carries over 30,000 vehicles per day on an average weekday. Thus, the project will likely attract existing trips in the area that are "passing by" on the way to another destination, particularly during the weekday AM and PM peak hour. The 50 percent pass-by reduction applied to the retail uses and the 20 percent pass-by reduction applied to the restaurant uses are derived from surveys published in *Trip Generation Handbook: An ITE Recommended Practice* (ITE, 2003).

The project site is located within 700 feet of the Los Angeles County Metropolitan Transportation Authority's (Metro) Hollywood/Vine Station, which provides service to the Metro Red Line subway. The Metro Red Line travels between Union Station in Downtown Los Angeles and North Hollywood in the San Fernando Valley at 10 minute intervals during the commuter AM and PM peak hours and throughout the day. The project site is also served by numerous transit lines within walking distance on Yucca Street, Argyle Avenue, and Hollywood Boulevard, including Metro Lines 180/181, 210, 217, 757, and 780, as well as the Los Angeles Department of Transportation (LADOT) DASH Hollywood, Beachwood Canyon, and Hollywood/Wilshire routes. Bicycle routes with shared lane markings, or "sharrows," are also provided adjacent to the project site on Argyle Avenue

A transportation demand management (TDM) program will be implemented to reduce the project's single occupant vehicles trips and increase the trips arriving via alternative modes of transportation (e.g., walking, bicycle, carpool, vanpool, and transit). The TDM program would include design features, transportation services, education, and incentives intended to reduce the amount of single occupant vehicles during commuter peak hours. The TDM program may include the following strategies:

- Promotion and support of carpools and rideshares
- On-site short-term car rentals
- Bicycle amenities (bicycle racks, lockers, showers, etc.)
- A contribution to the City's Bicycle Plan Trust Fund for bicycle facility improvements
- Education and information on alternative transportation modes
- Preferential parking location for high occupancy vehicles
- Participation in the Hollywood Transportation Management Organization

The combined effects of the project's urban infill location along major corridors, proximity to transit and pedestrian amenities, and proposed TDM program would reduce the project's anticipated vehicular trip generation estimates by a minimum of approximately 30 percent as compared to a comparable mixed-use project. Therefore, the project results in at least 10 percent greater transportation efficiency or more.

The AB 900 Traffic Assessment for the 6220 West Yucca Project, dated January 12, 2017, is attached as **Exhibit 4**.

Information to show the project is located on an infill site, defined at Public Resources Code Section 21061.3, and in an urbanized area, as defined at Public Resources Code Section 21071

The project is located on an infill site. Under Public Resources Code (PRC) Section 21061.3, an "infill site" is defined as a site that "has been previously developed for qualified urban uses." In turn, a "qualified urban use" is defined, pursuant to PRC Section 21072, as "any residential, commercial, public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses." Additionally, the project is located in an "urbanized area," which is defined under PRC Section 21071 as "an incorporated city" that meets the criteria of having a population of at least 100,000 persons. The City of Los Angeles has a population of 3,957,022 in 2014 according to the 2015 estimates prepared by the California Department of Finance. The project would represent an urban infill development since it would be located on a site that meets the definition of an infill site in an urbanized area and would be considered a qualified urban use.

For a project that is within a metropolitan planning organization for which a sustainable communities strategy or alternative planning strategy is in effect, information to show the project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy, for

which the State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets. For the purposes of this provision, "in effect" means that the sustainable communities strategy or the alternative planning strategy has been adopted by the metropolitan planning organization, and that the Air Resources Board has accepted the metropolitan planning organization's determination that the sustainable communities strategy or alternative planning strategy meets the adopted greenhouse gas reduction targets and is not the subject of judicial challenge.

California Senate Bill (SB) 375 was passed by the State Assembly on August 25, 2008 and signed into law by the Governor on September 30, 2008. This legislation links regional planning for housing and transportation with the greenhouse gas (GHG) reduction goals outlined in California Assembly Bill (AB) 32. Under SB 375, each Metropolitan Planning Organization (MPO) is required to adopt a Sustainable Community Strategy to encourage compact development that reduces passenger vehicle miles traveled (VMT) and trips so that the region will meet a target, created by the California Air Resources Board (CARB), for reducing GHG emissions.

The project is within the jurisdiction of the Southern California Association of Governments (SCAG). On April 4, 2012, SCAG's Regional Council adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future (2012–2035 RTP/SCS). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 RTP/SCS: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life. The 2016-2040 RTP/SCS reaffirms the land use policies that were incorporated into the 2012-2035 RTP/SCS. On June 28, 2016, CARB accepted SCAG's quantification of GHG emission reductions from the 2016 SCS and the determination that the 2016 SCS would, if implemented, achieve the 2020 and 2035 GHG emission reduction targets established by CARB.[1]

The purpose of the SCAG RTP/SCS is to achieve its assigned regional per capita GHG reduction targets for the passenger vehicle and light-duty truck sector established by CARB pursuant to SB 375. SCAG's RTP/SCS plans for regional population growth using smart land use strategies. As part of the SCS/RTP, "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."[2] Moreover, the 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 RTP/SCS would "supports sustainable growth through a

1 CARB, Executive Order G-16-066, SCAG 2016 SCS ARB Acceptance of GHG Quantification Determination, April 2016 (http://www.arb.ca.gov/cc/sb375/scag_executive_order_g_16_066.pdf).

2 Southern California Association of Governments, Draft Program Environmental Impact Report – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015), page 3.8-35.

more compact, infill, and walkable development pattern."[3] Accordingly, the RTP/SCS outlines the region's plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Additionally, the RTP/SCS demonstrates the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB. The majority of new housing and job growth is focused in high-quality transit areas (HQTA) and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development (TOD). This overall land use development pattern supports and complements the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management (TDM) measures.

Adopted strategies for the reduction of GHG emissions, as part of the 2012–2035 RTP/SCS and the 2016-2040 RTP/SCS, have the potential to significantly change the region's land use and travel patterns to achieve GHG reductions by 2020, 2035, and 2040. Such strategies include (but are not limited to) the following:

- Compact growth in areas accessible to transit;
- Half of all new development on three percent of the region's land use;
- More multi-family housing, jobs, and housing closer to transit;
- New housing and job growth focused in HQTAs; and
- Investments in biking and walking infrastructure to improve active transportation options and transit access.

Consistent with the RTP/SCS, 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 provided by the nearby Metro Red Line, which provides convenient access to locations within North Hollywood, Universal City, Hollywood and Downtown Los Angeles and direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood). The SCAG objective of more multi-family housing in proximity to jobs and transit would be accomplished by the proposed development. New housing and job growth, as a result of the completed project, is focused in a HQTA, which SCAG defines as an area within a half mile of a well-serviced transit stop. A well-service transit stop is one which has a 15 minute or less service frequency during peak commute hours."[4] As discussed above, the project would be consistent with this strategy.

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3 Ibid, page 3.8-36.

4 Technical Evaluation of the Greenhouse Gas Emission Reduction Quantification for the Southern California Association of Governments' SB 375 Sustainable Communities Strategy, dated May 2012. Document located on the ARB website: http://www.arb.ca.gov/cc/sb375/scag_scs_tech_eval0512.pdf.

The project would provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16, to encourage non-polluting transportation alternatives. Data from the City of Los Angeles shows that within the Hollywood Community Plan Area, the area in which the project site is located, the percentage of workers that commute to work by walking, biking, and public transportation is approximately 22 percent for the area as a whole based on 2010 data.[5] The statewide percentage of workers that commute to work by walking, biking, and public transportation is approximately 9 percent based on census data for the 2010 to 2014 period.[6] The data indicates that the project site area, which is located in the Hollywood Community Plan Area, substantially exceeds the statewide average for the percentage of workers that commute to work by walking, biking, and public transportation. The high proportion of workers that commute to work by walking, biking, and public transportation in the project site area supports a reasonable expectation that residents and visitors of the project would have access to and would utilize alternative forms of transportation. This finding is consistent with the California Air Pollution Control Officers Association (CAPCOA) findings in the CAPCOA guidance, *Quantifying Greenhouse Gas Mitigation Measures*, land use transportation (LUT) measure LUT-5 (Increase Transit Accessibility), which indicates that "high density near transit will facilitate the use of transit by people."[7]

Therefore, the project would be consistent with the goals of the SCAG RTP/SCS, which seeks "[s]trategies focused on high-quality places, compact infill development, and more housing and transportation choices." As this information demonstrates, the project has been proposed in an area where its development can achieve substantial reductions in VMT and associated mobile source emissions relative to the statewide average. The project's traffic study also verifies that the proposed development would result in decreases of the average auto trip length and per capita VMT. By adhering to SCAG's strategies to reduce VMT and associated GHG emissions, as noted above, the project serves to fulfill the MPO's determination that the RTP/SCS meets the adopted GHG reduction targets.

Information to show that the applicant has notified a lead agency prior to the release of the draft environmental impact report that it intends to certify a project for streamlined environmental review under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011. Written acknowledgment from the lead agency of the applicant's intent to apply for certification may be used to satisfy this requirement.

5 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 112. Document located on the City of Los Angeles website: http://planning.lacity.org/cwd/framwk/healthwellness/healthwellness.htm.

6 U.S. Census Bureau, American FactFinder, Data Set B08301 (Means of Transportation to Work, California, 2010-2014). Data obtained from the U.S. Census Bureau website: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_B08301&prodType=table.

7 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171.

Prior to the circulation of the Draft Environmental Impact Report (DEIR) and well before approval of the project entitlements, the City of Los Angeles, lead agency for the project, shall be notified that the Applicant is seeking certification for the project under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011, as amended by SB 743 and SB 734.

Information to show that the project will result in a minimum investment of $100 million in California through the time of completion of construction.

Development cost estimates for the construction period of the Yucca Argyle development plan is currently estimated to be in the range of $180 million. This activity is estimated to generate fiscal impacts and economic benefits as summarized in **Table 1** below:

TABLE 1
OVERVIEW OF FISCAL IMPACTS AND ECONOMIC BENEFITS

	Construction (One-Time / Short-Term)	Ongoing Operation (Annual)
Employment	**1,995 Jobs**	**194 Jobs**
Labor Income	**$142,107,152**	**$8,913,684**
Economic Output	**$314,303,776**	**$25,342,522**
State and Local Taxes	**$12,264,531**	**$4,919,656**
City of Los Angeles and other Local Cities	$389,198	$2,011,600
County of Los Angeles	$681,097	$892,849
State and Other Local	$11,194,235	$2,015,207
Federal Taxes	**$25,568,537**	**$2,082,428**

SOURCE: Kosmont Companies, 6220 West Yucca Street Fiscal Impact & Economic Benefit Analysis, March 2017.

A detailed Fiscal Impact and Economic Benefit Analysis for the Yucca Argyle Project, dated March 2017, is attached as **Exhibit 5**.

Information to show that the project will satisfy the prevailing and living wage requirements of Public Resources Code section 21183(b).

The project will create high-wage, highly skilled jobs that pay prevailing wages and living wages and will comply with all provisions of Public Resources Code Section 21183 as ordered and amended by SB 734. The Applicant has already entered into a project labor agreement (PLA) specifically to fulfill the requirements of Section 21183 as ordered by SB 734.

Information establishing that the project will not result in any net additional greenhouse gas emissions. This information includes (1) a proposed methodology for quantifying the project's net additional greenhouse gas emissions, and (2) documentation that quantifies both direct and indirect greenhouse gas emissions associated with the project's construction and operation, including emissions from the project's projected energy use and

transportation related emissions; and quantifies the net emissions of the project after accounting for any mitigation measures. This information is subject to a determination signed by the Executive Officer of the Air Resources Board that the project does not result in any net additional greenhouse gas emissions, following the procedures set forth in section 6 of the Governor's Guidelines.

The project will not result in any net additional greenhouse gas (GHG) emissions. The proposed methodology for quantifying the project's GHG emissions is attached as **Exhibit 6**.

Prior to the onset of construction activity, the existing uses will be vacated and all facilities will cease to operate. The project site is currently improved with one single-family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas, all of which would be demolished and removed to allow for development of the project. Given the physical space limitations of the project site, the entire site would be fully built out prior to occupancy. Thus, the project would not result in simultaneous construction and operation GHG emissions from partial occupancy during construction.

Construction of the project would result in one-time GHG emissions of carbon dioxide (CO_2) and smaller amounts of methane (CH_4) and nitrous oxide (N_2O) from heavy-duty construction equipment, haul trucks, and worker vehicles. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and on-road emissions factors. The emissions are estimated using the California Emissions Estimator Model (CalEEMod), which incorporates the CARB off-road emissions factor model, OFFROAD, and the on-road emissions factor model, EMFAC. The output values used in this analysis are adjusted to be project-specific based on expected equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for each construction year. The CalEEMod tool provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Since a specific construction contractor(s) has not yet been retained for the project, specific equipment specifications are not yet known. Therefore, air district recommended default equipment and vehicle horsepower ratings and load factors provided in CalEEMod are used in this assessment. The use of these CalEEMod factors is recognized as providing a reasonably conservative estimate of a project's construction emissions. Construction of the project would occur over a number of phases and include activities such as demolition, debris and soil hauling, building construction, architectural coating, and paving. The construction phases are not independent of each other, as there may be overlap and efficiency built into the construction process. Information regarding the activities that would occur during these phases is provided below:

- **Demolition:** This first phase is anticipated to begin as early as 2018 and last for just under one month (approximately three weeks). If construction commences at a later date, this assessment would be considered conservative as future year emission factors tend to decline in future years. Construction equipment would include an excavator, dozers concrete saw, tractors/loaders/backhoes, haul trucks, and other construction equipment.

- **Site Preparation:** This phase is anticipated to begin after the demolition phase and last for approximately one to two weeks. Construction equipment would include tractors/loaders/backhoes and rubber tired dozers.
- **Grading and Excavation:** This phase is anticipated to begin after the site preparation phase and last for approximately four months. Construction equipment would include a drill rig, excavators, dozer, loader, scraper, tractors/loaders/backhoes, haul trucks, and other equipment. Up to approximately 120,000 cubic yards of soil, based on conservative measurements, would be excavated and exported.
- **Building Construction:** This phase is anticipated to begin after grading and last for approximately 17 months. During this phase, the parking structure and residential and commercial buildings would be constructed. Construction equipment would include forklifts, crane, tractors/loaders/backhoes, generator, welders, concrete pump, concrete trucks, and other construction equipment.
- **Paving:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, paving materials would be poured during construction of the buildings and related features and the surfaces would be paved. Construction equipment would include a concrete truck, paving equipment, and other equipment.
- **Architectural Coating:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, the interior and exterior coating would be applied to the residential and commercial buildings. Specific coating equipment would include an air compressor.

Operation of the project would generate GHG emissions from vehicles traveling to and from the site, area sources (landscaping equipment and hearths) energy demand (electricity and natural gas), water demand, and solid waste generation. Physical and operational land use characteristics and green building features for which sufficient data is available to quantify the reductions from building energy and resource consumption are accounted for in the quantitative analysis, and include but are not limited to the following measures described below.

Land Use Characteristics: The project characteristics listed below are consistent with the CAPCOA guidance document, *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for land-use transportation characteristics and measures, and would reduce vehicle trips to and from the project site compared to a project located in an area without these characteristics. They would therefore result in a corresponding reduction in VMT and associated GHG emissions.

- **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 measure corresponds to CAPCOA guidance measure LUT-1. 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/compact infill location and is mixed-use; therefore, this measure applies to the project. The project would increase the project site density to approximately 181 dwelling units per acre.

- **Location Efficiency:** Location efficiency describes the location of the 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. This measure corresponds to CAPCOA guidance measure LUT-2. 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the geographic location of the project within the region. The project site represents an urban/compact infill location within the Hollywood community of the City 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 South Coast Air Basin average and would result in corresponding reductions in transportation-related emissions.
- **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 could be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This measure corresponds to CAPCOA guidance measure LUT-3. According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the percentage of each land use type in the project. The project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The project would include on-site 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 and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
- **Increased Destination Accessibility:** This measure corresponds to CAPCOA guidance measure LUT-4. 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure 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, studio/production, office, entertainment, movie theater, and residential uses. The project site is also located near other job centers in the region, which include Downtown Los Angeles (easily accessible via the Metro Red Line station located within a quarter mile of the site), Beverly Hills, Century City, Westwood, and the Hollywood area itself. The access to multiple destinations in close proximity to the project site would reduce vehicle trips and VMT compared to the statewide and South Coast Air Basin average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.

- **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 measure corresponds to CAPCOA guidance measure LUT-5. According to CAPCOA, the reduction in VMT from this measure 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the distance to transit stations near the project. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood) and the Metro Red Line, which provides convenient access to North Hollywood, Universal City, Hollywood, and Downtown Los Angeles. The project would provide access to on-site uses from existing pedestrian pathways. The project would also provide parking for approximately 402 bicycles on-site to encourage utilization of alternative modes of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the statewide and South Coast Air Basin average, encourage 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 measure corresponds to CAPCOA guidance measure SDT-1. According to CAPCOA, the reduction in VMT from this measure applies to urban, suburban, and rural settings for residential, retail, office, industrial, and mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include pedestrian access connectivity within the project and to/from off-site destinations. The project would improve the street-level pedestrian environment and connectivity to the surrounding Hollywood area, with pedestrian access to commercial/restaurant uses provided from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bike parking along Argyle Avenue, Yucca Street, and Vista Del Mar Avenue. 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.

Green Building Features: The project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. Green building measures would include, but are not limited to the following.

- The project would be designed to optimize energy performance and reduce building energy cost by a minimum of 5 percent for new construction compared to the Title 24 Building Energy Efficiency Standards (2016):
- The project would be designed to optimize energy performance and reduce building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent;
- The project would reduce outdoor potable water use by a minimum of 20 percent compared to baseline water consumption. Reductions would be achieved through drought-tolerant/California native plant species selection, irrigation system efficiency, alternative

water supplies (e.g., stormwater retention for use in landscaping), and/or smart irrigation systems (e.g., weather-based controls).

- The project would reduce indoor potable water use by a minimum of 20 percent compared to baseline or standard water consumption by installing water fixtures that exceed applicable standards.
- The project would provide on-site recycling areas, consistent with City of Los Angeles strategies and ordinances, with the goal of achieving 70 percent waste diversion by 2020, and 90 percent by 2025.
- To encourage carpooling and the use of electric vehicles by project residents and visitors, the Applicant shall designate a minimum of eight (8) percent on on-site parking for carpool and/or alternative-fueled vehicles and shall pre-wire, or install conduit and panel capacity for, electric vehicle charging stations for a minimum of five (5) percent of on-site parking spaces.

Detailed GHG emissions calculations demonstrating a net zero increase is attached as **Exhibit 6**.

Information documenting a binding agreement between the project proponent and the lead agency establishing the requirements set forth in Public Resources Code sections 21183(d) (all mitigation measures will be conditions of approval and enforceable, and environmental mitigation measures will be monitored and enforced for the life of the obligation), (e) (applicant will pay costs for hearing by Court of Appeal), and (f) (applicant will pay costs of preparing the administrative record).

SB 743 (effective January 1, 2014) amended the AB 900 Guidelines, regarding the documentation of a binding agreement between the project proponent and the lead agency establishing the requirements set forth in Public Resources Code sections 21183 (d) (e) and (f), to remove the need for a binding agreement prior to the release of the Draft Environmental Impact Report. Section 21181 as amended by SB 734 requires the Governor to certify the project as an environmental leadership development project eligible for streamlining prior to January 1, 2018. The Applicant is proceeding with the Draft EIR pursuant to the AB 900 Guidelines and the requirements of Public Resources Code section 21187 as amended.

The letter of acknowledgement and binding agreement between the Applicant and the City of Los Angeles is provided in **Exhibit 7**.

Information per Public Resources Code 21184.5 as amended by SB 734 to show the project is providing unbundled parking for residential dwelling units, except for affordable dwelling units.

The project will provide unbundled parking for the residential dwelling units.

Consistency with Planning Goals, Policies and Objectives of the City Of Los Angeles.

The project site is located within the Hollywood Community Plan area in the City of Los Angeles. The project site has General Plan land use designations of Regional Center Commercial

and Medium Residential and is currently zoned Commercial-Height District 2 with Development Limitation-Sign Supplemental Use District (C4-2D-SN), Multiple Dwelling-Height District 2 with Development Limitation (R4-2D), and Multiple Dwelling-Height District 1XL ([Q]R3-1XL). The 'Q' Condition limits the residential density to one dwelling unit per 1,200 square feet of lot area. The 'D' limitation restricts the Floor Area Ratio (FAR) to 2:1, unless certain approvals are received. The project site is located in the Hollywood Redevelopment Plan area and the Plan limits Regional Center Commercial designations to a 4.5:1 FAR with a maximum 6:1 FAR with City Planning Commission approval. The project will seek up to a 10 percent adjustment to the FAR for the site. The project site is also located in a Los Angeles State Enterprise Zone; an Adaptive Reuse Incentive Area; and within the Vista Del Mar Avenue/Carlos Historic District (properties along North Vista Del Mar Avenue only).

The project is consistent with many of the goals, policies and objectives of the City of Los Angeles General Plan, the Housing Element, and the Do Real Planning Guidelines. In addition, all entitlements being considered for approval by the City of Los Angeles conform with the appropriate sections set forth in the LAMC and the underlying zoning.

General Plan Framework

The General Plan Framework includes the following goals, objectives and policies relevant to the proposed mixed-use development:

Objective 3.1: Accommodate a diversity of uses that support the needs of the City's existing and future residents, businesses, and visitors.

Policy 3.1.1: Identify areas on the Land Use Diagram and the Community Plans sufficient for the development of a diversity of uses that serve the needs of existing and future residents (housing, employment, retail, entertainment, cultural/institutional, educational, health, services, recreation, and similar uses), provide job opportunities, and support visitors and tourism.

The project would provide 210 multi-family residential units, 136 hotel rooms, and approximately 12,500 square feet of commercial/restaurant uses to replace 43 multi-family units and one single-family residence on the project site. The range of housing types and additional commercial/restaurant uses represent a more diverse mix of land uses that would support the needs of the City's existing and future residents, businesses, and visitors.

The Framework Element Land Use Diagram(s) designate(s) districts, centers and mixed use boulevards that are encouraged to develop with appropriate uses and character for their land use designations. The project site (West and Center Parcels) is located in an area that is identified as a "Regional Center" and targeted for high density growth on the General Plan Framework's Land Use Diagram. Development of the project would support the intent of the Regional Center designation by providing a mix of uses that provide employment opportunities and enhance commercial services. The provision of residential units at this Hollywood location would serve the needs of existing and future residents, would expand the diversity within the designated

Regional Center, and provide housing in close proximity to commercial, retail, entertainment, and restaurant uses. The provision of the hotel component would contribute a large number of hotel rooms to the area, thus supporting tourism and the economic viability of the entertainment, commercial, and tourist activities in the area.

Objective 3.2: To provide for the spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicle trips, vehicle miles traveled, and air pollution.

Policy 3.2.3: Provide for the development of land use patterns that emphasize pedestrian/bicycle access and use in appropriate locations.

The project would contribute to the concentration of mixed-use development along a corridor with convenient access to the Metro Red Line (within 0.13 miles), Metro bus and Metro rapid bus lines, and the LADOT DASH lines. The new residential population and hotel patrons would have access to commercial development on site as well as retail, restaurant, office, and entertainment activities within walking and biking distance and via bus and rail service.

The project would provide pedestrian access from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bicycle parking along Argyle Avenue, Yucca Street, and Vista Del Mar Avenue. The additional building setbacks along Argyle Avenue and Yucca Street would be combined to increase the width of the sidewalks and enhance pedestrian access. The project would also include 402 short-term and long-term bicycle parking stalls.

The project's location, design, and specific features, including its proximity to high-capacity and high-frequency transit, easily accessible ground-floor retail and restaurant uses, and implementation of a TDM program that will reduce the use of single occupant vehicles and increase the number of trips by walking, bicycle, carpool, vanpool, and transit. The project would be expected to result in VMT reductions of approximately 30.3 percent daily, including 30.5 percent during the morning peak hour and 31.9 percent during the afternoon peak hour.

Objective 3.16: Accommodate land uses, locate and design buildings, and implement streetscape amenities that enhance pedestrian activity.

The exterior boundaries of the project site along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue would provide streetscape amenities for pedestrians, including café tables, parkway planters, and bicycle parking. A resident-only outdoor courtyard space would be provided along Vista Del Mar at the southeast portion of the project site. The project would also include ground-level commercial uses along Yucca Street and Argyle Avenue, which would also enhance pedestrian activity

Housing Element 2013-2021

The project is consistent with several goals, objectives and policies of the Housing Element 2013-2021, recently adopted by the Los Angeles City Council on December 3, 2013. The City of Los Angeles is committed to providing affordable housing and amenity-rich sustainable neighborhoods for its residents, answering the variety of housing needs of its growing population.

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 SCAG's Regional Housing Needs Assessment.

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.
Objective 1.1: Produce an adequate supply of rental and ownership housing in order to meet current and projected needs.
Policy 1.1.3: Facilitate new construction and preservation of a range of different housing types that address the particular needs of the city's households.
Policy 1.1.4: Expand opportunities for residential development, particularly in designated Centers, Transit Oriented Districts and along Mixed-Use Boulevards.

The 2013 – 2021 Housing Element identifies a need for 82,002 new housing units, of which 35,412 units, i.e. 43.2 percent of all units, would be marketed at above moderate income levels. The remaining 56.8 percent of the needed housing units consist of 13,728 moderate income units (16.8 percent), 12,435 low income units (15.2 percent), 10,213 very low income units (12.5 percent), and 10,213 extremely low income units (12.5 percent). The project would provide 210 new multi-family residential units that would serve the growing population of the community in a designated Regional Center. The project would also include commercial and restaurant uses and hotel rooms, which would contribute to meeting the needs of project residents. However, the project would remove 44 residential units (43 multi-family units and one single-family residence) and result in a net increase of 166 dwelling units in the Hollywood Community Plan area. The 166 units would represent 0.20 percent of the 82,002 needed units identified in the SCAG RHNA for the 2013 to 2021 planning period. Although existing residential units would be removed, the resulting project would provide a greater range of housing types.

Objective 1.3: Forecast and plan for changing housing needs over time in relation to production and preservation needs.

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 the projections of housing needs, according to the policies and objectives of the City's Framework Element of the General Plan.

The project would concentrate new housing within a Regional Center consistent with policies and objectives of the Framework Element. Furthermore, as stated above, the project would meet housing needs identified in SCAG's Regional Housing Needs Assessment.

Goal 2: Safe, Livable, and Sustainable Neighborhoods

Objective 2.1: Promote safety and health within neighborhoods.

Policy 2.1.1: Establish development standards and policing practices that reduce the likelihood of crime

Policy 2.1.2: Establish development standards and other measures that promote and implement positive health outcomes.

The project would promote safety and health within the neighborhood by providing landscaping, new sidewalks, and lighting along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue and introducing commercial and restaurant uses along Yucca Street and Argyle Avenue. The project would incorporate 24-hour/seven day security program to ensure the safety of residents and visitors, including controlled access, video surveillance, and security personnel.

The project would implement Project Design Features to promote positive health outcomes, including compliance with the Los Angeles Green Building Code and 2016 California Green Building Standards (CALGreen) Code, and compliance with USGBC LEED Gold or Silver Certification or equivalent standards. The project would be located along a mixed-use corridor that would provide opportunities for pedestrian, bicycle, and public transit. In addition, the project would provide 402 short-term and long-term bicycle parking spaces. Although the project would place residential uses near the Hollywood Freeway, the residents would be located at an adequate distance from the freeway so that exposure to freeway-generated toxic air contaminants would not pose a significant health risk.

Objective 2.3: Promote sustainable buildings, which minimize adverse effects on the environment and minimize the use of non-renewable resources.

Policy 2.3.2: Promote and facilitate the reduction of water consumption in new and existing housing.

Policy 2.3.3: Promote and facilitate reduction of energy consumption in new and existing housing.

Policy 2.3.4: Promote and facilitate reduction of waste in construction and building operations.

The project would ensure sustainable building design through compliance with the 2016 CALGreen Code, Los Angeles Green Building Code, Los Angeles Building Code, Planning and Zoning Code, and compliance with USGBC LEED Gold or Silver Certification or equivalent standards. Design features of the project would include the use of energy efficient glass/window areas for ventilation and daylight accessibility; landscaping of roof deck (Level 13); well-lit pedestrian areas; common open space for residents, including an outdoor courtyard, rooftop garden space, and on Level 6 outdoor dining, pool deck, and fitness center that is shared with hotel guests. The project would implement a construction waste management plan and reduce indoor water use by a minimum of 20 percent or more. The project would include a dedicated on-site recycling area

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.

Policy 2.4.1: Promote preservation of neighborhood character in balance with facilitating new development.

Policy 2.4.2: Develop and implement design standards that promote quality residential development.

The project would provide 210 multi-family residential units within two buildings. Building 1, at a height of 20 stories, would be consistent with the more intense mixed-use development along Yucca Street and Argyle Avenue. Building 2, which is all residential, would be reduced in height to four stories and would incorporate deep landscape setbacks along Vista Del Mar Avenue and the southern property line to support compatibility in scale and character with the adjacent residential neighborhood.

City Planning Commission – Do Real Planning

Promoting the ideals of inspired, principles land use planning concepts at a citywide level, the Los Angeles City Planning Commission has fostered new visions with its "Do Real Planning." The proposed project fulfills several of these important objectives and goals:

Demand a Walkable City: This concept poses the question of whether a project actively welcomes its own users, its neighbors and its passerby. The project proposes a walkable concept along a major commercial corridor by orienting commercial retail spaces towards the street frontages. The project would provide an enhance street frontage with ground level retail along Yucca Street and Argyle Avenue, and landscaping and new sidewalks along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue. Ground level retail and café seating would be provided along Yucca Avenue and Argyle Avenue. The project would provide landscaping in public areas along Yucca Street, Argyle Avenue, and Vista Del Mar and landscaping of private common areas, including the outdoor courtyard, roof garden, and pool deck. These features would enliven the pedestrian environment and improve the visual character of the project site and Hollywood Regional Center.

Offer Basic Design Standards: The project would replace three existing apartment buildings, a duplex with a detached garage, a studio apartment over garage, and a single-family with a 32-story mixed-use building (Building 1) and a six-story residential building (Building 2). The project would be tiered from west to east so that the Building 1 would be located near Argyle Avenue and Yucca Street near similar high rise mixed-use development and Building 2 would incorporate deep setbacks along Vista Del Mar Avenue and the southern property line to be compatible with the adjacent residential neighborhood.

Require Transit Around Density: The project would increase population density in an area that is well served by public transit, including a Metro Red Line station, multiple regional Metro bus routes, and LADOT DASH Lines. The project would provide convenient access to employment opportunities in the Hollywood community and provide new employment opportunities as part of the retail, restaurant, and hotel components. The project would congregate additional density in an area that is close to transit.

Locate Jobs Near Housing: The Commission observes that "the time for segregating jobs from housing in Los Angeles has passed." The Commission observes that the City has "several stale business boulevards and districts that are ripe for renovation; in these traditionally commercial-only locations, we must include both jobs and housing in the mix." The project site is primed for

renovation proposed by the Commission insofar as the project would bring both jobs and housing into the mix with the proposed mixed-use development.

Produce Green Buildings: The project would comply with the applicable requirements of the 2016 CALGreen Code, the Los Angeles Green Building Code, and compliance with the USGBC LEED Gold or Silver Certification or equivalent standards. Some of the project's key design features that would contribute to energy efficiency include the use of energy efficient glass/window areas for ventilation and daylight accessibility, and landscaping of roof decks. Other building features would include: stormwater retention; installation of energy-efficient HVAC systems that utilize ozone-friendly refrigerants; use of materials and finishes that emit low quantities of VOCs; use of high efficiency fixtures and appliances; water conservation features; and dedicated on-site recycling area.

Identify Smart Parking Requirements: The project would replace one single-family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas at the corner of Yucca Street and Argyle Avenue with a 20-story building atop a six-level parking podium (including two fully subterranean and two semi-subterranean levels) and a three-story building atop a two-story podium parking structure (including one subterranean and one ground parking level). The parking structure within Building 1 would include 415 parking spaces (311 for residential uses, 79 for hotel uses, and 25 for commercial/restaurant uses). Parking for Building 2 would be provided in a two-level podium structure within the ground level and one subterranean level. The parking structure within Building 2 would include 23 parking spaces for residential uses. Entrance to the parking podium would be provided via Yucca Street and Argyle Avenue. The buildings and podium would be modern in design and feature glass clad exterior walls. The project would provide an enhance street frontage with ground level retail along Yucca Street and Argyle Avenue, and landscaping and new sidewalks along Yucca Street, Argyle Avenue, and Vista Del Mar Avenue.

Statutory requirement:

The project will achieve at least 10 percent greater transportation efficiency than comparable projects. The applicant shall provide information setting forth its basis for determining and evaluating comparable projects and their transportation efficiency, and how the project will achieve at least 10 percent greater transportation efficiency. For residential projects, the applicant shall also submit information demonstrating that the number of vehicle trips by residents divided by the number of residents is 10 percent more efficient than for comparable projects. For the purposes of this provision, comparable means a project of the same size, capacity and location type.

The project application references four avenues by which trips and VMT would be reduced:

1. **Transit/Walk Reduction**. The project application states that the project will be located less than 700 feet from a high-frequency transit route serving high-density areas in Los Angeles. The project application also states that the area nearby the project site provides pedestrian connectivity to amenities. A 15% transit/walk reduction was applied, resulting in the anticipated reduction of 552 trips per day.
2. **Internal Capture Reduction.** The project application states that ground-level retail and restaurant services would capture project site resident patrons and lead to the reduction of 130 trips per day.
3. **Transportation Demand Management.** The project application states that the project proposes a TDM program that is expected to include parking incentives, bicycle amenities, and education on alternative transit modes. The project application states that the TDM program will reduce trips by 140 trips per day.
   Note: *The project application does not provide any details for accountability mechanisms, oversight structure, or benchmarks to achieve trip reductions as stated.*
4. **Removal of Existing Uses**. The project application states that the removal of current residential occupation will eliminate existing trips, resulting in a reduction of 245 trips per day.

Trips	Total	Morning Peak	Afternoon Peak
Comparable Project	3,574	267	293
(1) Transit / Walk Reduction	(552)	(40)	(46)
(2) Internal Capture Reduction	(130)	(10)	(10)
(3) TDM Program Reduction	(140)	(11)	(13)
(4) Existing Land Use Reduction	(245)	(19)	(23)
Net Project Trips	2,507	187	201
Percent Reduction	**29.9%**	**30.0%**	**31.4%**

Source: Table 8 and 9 from "AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California" prepared by Gibson Transportation Consulting Inc., p. 58 of the project application

The project's location in a centralized area near transit active transportation amenities, as well internal trip capture due to its mix of land uses, will increase its travel efficiency compared to projects located further afield or which are of a single land use.

The program of TDM measures will increase travel efficiency compared to a comparable project at a comparable location. The amount of improvement in travel efficiency depends upon the actual strategies implemented, and the extent of implementation of those strategies. In order to meet the statutory requirement, the TDM strategies listed need to be implemented in a combination and to an extent that would achieve 10 percent trip reduction for the project. Therefore, the TMD strategies need to be identified as part of the project or part of project mitigation with a specific commitment to a performance standard of at least 10 percent trip reduction from TDM. In addition, the performance of the TDM program must be monitored to ensure that the 10 percent reduction is achieved.

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technical memorandum

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to Scott Morgan, State Clearinghouse Director, Governor's Office of Planning and Research

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from Heidi Rous, Air Quality and Noise Group Director, ESA
Alan Sako, Senior Air Quality Scientist, ESA

subject Application for Streamlining Judicial Review Under CEQA - 6220 West Yucca Project: Consistency with the general land use designation, density, building intensity, and applicable policies specified for the project area in the adopted Sustainable Community Strategy

This Technical Memorandum was prepared in response to a request by the Governor's Office of Planning and Research to provide evidence demonstrating that the 6220 West Yucca Project would be consistent with the "general use designation, density, building intensity, and applicable polices specified for the project area in in either a sustainable communities strategy or alternative planning strategy" pursuant to CEQA Statute 21180(b)(1) for the purposes of the Application for Streamlining Judicial Review Under CEQA (Senate Bill 743; Statutes 2013, Chapter 386).

As discussed herein the project would be consistent with the general land use designation, density, and building intensity outlined in the Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Using data collected from local jurisdictions, including General Plans, SCAG categorized existing land use into "land use types," then combined these land use types into 35 place 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 (SCAG, 2016–2040 RTP/SCS, pages 20–21, available at: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx, 2016).

SCAG identified the existing General Plan land uses as Commercial and Services (SCAG Data Request Maps, refer to the attached **Figure 1**). After converting this data into Scenario Planning Zone-level place types, SCAG categorized the area surrounding the project as an urban area (SCAG, 2016–2040 RTP/SCS Background Documentation, Exhibit 13 Forecasted Regional Development Types by Land Development Categories (2012) Los Angeles City Subregion, available at: http://scagrtpscs.net/Documents/2016/draft/d2016RTPSCS_SCSBackgroundDocumentation.pdf, 2016).

The RTP/SCS defines urban areas as "often found within and directly adjacent to moderate and high density urban centers. Nearly all urban growth in these areas would be considered infill or redevelopment. The majority of housing is multi-family and attached single-family (townhome), which tend to consume less water and energy than the large types found in greater proportion in less urban locations. These areas are supported by high levels of regional and local transit service. They have well-connected street networks, and the mix and intensity of uses result in a highly walkable environment. These areas offer enhanced access and connectivity for people who choose not to drive or do not have access to a vehicle" (SCAG, 2016–2040 RTP/SCS, page 20).

The SCAG urban land development category comprises the following urban footprint scenario models, including urban mixed use, urban residential, urban commercial, city mixed use, city residential, and city commercial (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 9, available at: http://www.scagrtpscs.net/Documents/2016/supplemental/LDC_PlaceType.pdf, 2016; SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, available at: http://scagrtpscs.net/documents/2016/supplemental/UrbanFootprint_PlaceTypesSummary.pdf, 2016). The project is consistent with the range of place types within the SCAG urban land development category.

Additionally, the RTP/SCS states that "urban mixed-use districts are exemplified by a variety of intense uses and building types. Typical buildings are between 10 and 40+ stories tall, with offices and/or residential uses and ground-floor retail space. Parking is usually structured below or above ground. Workers, residents, and visitors are well served by transit, and can walk or bicycle for many of their transportation needs." The land use mix for the urban mixed-use place type is approximately 18 percent residential, 16 percent employment, 45 percent mixed-use, and 21 percent open space/civic (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

Urban residential uses are the most intense residential-focused type, and are typically found within or adjacent to major downtown areas. They include high-rise and mid-rise residential towers, with some ground-floor retail space. Parking is usually structured below or above ground. Residents are well served by transit and can walk or bicycle for many of their daily needs (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

City mixed-use areas are transit oriented and walkable, and contain a variety of uses and building types. Typical buildings are between 5 and 30 stories tall, with ground-floor retail space and offices and/or residential on the floors above. Parking is usually structured below or above ground. The land use mix for this place type is typically approximately 28 percent residential, 17 percent employment, 35 percent mixed use, and 20 percent open space/civic. The residential mix is composed of 97 percent multi-family and 3 percent townhomes. The average total net floor-area ratio (FAR) is 3.4, floor count ranges from 3 to 40 stories, and gross density ranges from 10 to 75 households per acre (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

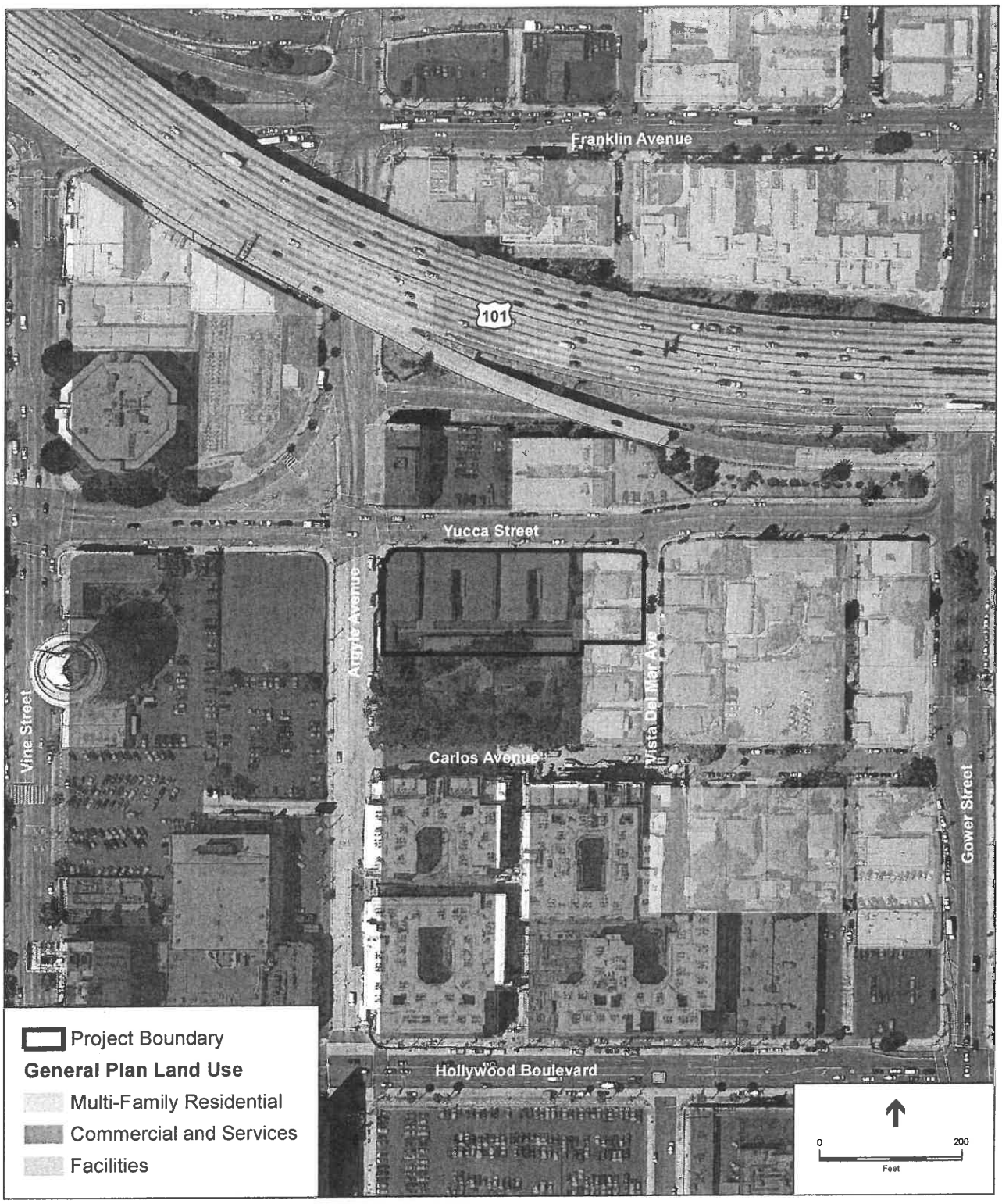
The RTP/SCS describes city residential place types as "dominated by mid- and high-rise residential towers, with some ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured below or above ground. Residents are well served by transit, and can walk or bicycle for many of their daily needs." The land use mix for this place type is typically approximately 65 percent residential, 4 percent employment, 11 percent mixed use, and 20 percent open space/civic. The residential mix is 97 percent multi-family and 3 percent townhome. The average total net FAR is 2.9, floor count ranges from 5 to 40 stories, and the

gross density ranges from 35 to 37 households per acre (SCAG, 2016–2040 RTP/SCS Background Documentation, Reference Document 6, 2016).

The project consists of the development of mixed-use residential units, hotel, and commercial retail uses in a highly urbanized part of the city of Los Angeles. Surrounding land uses include commercial uses to the west of the project site, across Argyle Avenue and Yucca Street, and residential uses to the east, along Yucca Street and across Vista Del Mar Avenue. Mixed-use residential uses are located to the south of the project site, across Carlos Avenue.

The project site (1756 and 1760 North Argyle Avenue, 6210–6224 West Yucca Street; and 1765, 1771, 1777, and 1779 North Vista Del Mar Avenue) is currently occupied by one single-family residence, one duplex with a detached garage and studio apartment over the garage, and three two-story apartment buildings with associated carports and paved surface parking areas. The proposed project would consist of two buildings. Building 1, located at the southeast corner of Yucca Street and Argyle Avenue, would include a six-level podium structure, which would include two fully subterranean levels (P3 and P2); two semi-subterranean levels (P1 and L1) due to the site's topography; and two entirely aboveground levels (L2 and L3). Building 1 would also include levels 4 through 20. Building 1 would include a mix of commercial, hotel, and residential uses. Building 2, located at the corner of Yucca Street and Vista Del Mar Avenue, would include three residential levels, over a two-story podium structure, which would include one subterranean parking level (P2), one semi-subterranean parking level (P1), and would be up to four stories aboveground along Vista Del Mar Avenue, and three stories aboveground along Yucca Street. Building 2 would consist of only residential uses.

Overall, the project (both buildings) would include 210 multi-family residential units, 136 hotel rooms, and approximately 12,500 square feet of commercial/restaurant uses. Parking would be provided on site within the six-level parking structure housed within the podium structure of Building 1 and the two-level parking structure housed within Building 2. The proposed project is located within the Hollywood Redevelopment Plan area and the Plan limits Regional Center Commercial designations to a 4.5:1 FAR with a maximum of 6:1 FAR with City Planning Commission approval. These uses are consistent with the SCAG urban land development category.



SOURCE: Google Earth, 2014-04-23 (Aerial); SCAG 2012.

6220 West Yucca Project

Figure 1

2012 SCAG General Plan Land Use Codes

ESA PCR

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER G-07-044

Relating to Determination of No Net Additional Greenhouse Gas Emissions Under Public Resources Code section 21183, subdivision (c) for 6220 West Yucca Street Project

WHEREAS, in September 2011, Governor Brown signed the "Jobs and Economic Improvement through Environmental Leadership Act" (AB 900);

WHEREAS, under AB 900, the Governor may certify certain projects for judicial streamlining under the California Environmental Quality Act (CEQA) if certain conditions are met;

WHEREAS, under California Public Resources Code section 21183, subdivision (c), one condition for the Governor's certification is that the project does not result in any net additional emission of greenhouse gases (GHG), as determined by the California Air Resources Board (CARB);

WHEREAS, the Governor's Guidelines for Streamlining Judicial Review under the California Environmental Quality Act require for purposes of CARB's determination on GHG emissions that an applicant submit electronically to CARB a proposed methodology for quantifying the project's net additional GHG emissions and documentation that the project does not result in any net additional GHG emissions;

WHEREAS, pursuant to the Governor's Guidelines, Riley Realty, L.P. (the Applicant) submitted its initial proposed GHG quantification methodologies and documentation to CARB on the proposed 6220 West Yucca Street Project (proposed project) on April 10, 2017, and clarifying documentation submitted on June 12, 2017, when the application was deemed complete;

WHEREAS, the application submitted for the proposed project estimates the project's net additional GHG emissions as follows:

1. Construction GHG Emissions: Additional 2,245 metric tons CO2e emissions from project construction and demolition activities. Construction-generated GHG emissions were estimated from equipment used for construction activities and from both on-site and off-site vehicles and equipment;

2. Operation-Related GHG Emissions: Additional 4,405 metric tons CO2e emissions during the first full year of project operation (2021) and declining operational emissions in future years over the lifetime of the project.

WHEREAS, in the application, the applicant proposes to secure 2,245 metric tons of one-time carbon credits to offset emissions generated during construction and to secure 103,669 metric tons of carbon credits on a net present value basis to offset the net increase in emissions generated during project operation through a voluntary carbon credits market from a qualified GHG emissions broker to fully offset these identified construction and operational GHG emissions;

WHEREAS, CARB staff reviewed and evaluated the application in consultation with the lead agency (the City of Los Angeles);

WHEREAS, CARB staff conducted an evaluation of the GHG emission estimates and voluntary mitigation included in the application submitted by the applicant and confirmed the documentation provides an adequate technical basis for estimating total GHG emissions and voluntary mitigation for the proposed project;

WHEREAS, CARB's review and determination on the proposed project's GHG emissions is for the limited purpose of the Governor's findings and certification under AB 900 and should not be construed as meeting any other requirement under State or federal law, including CEQA; the lead agency remains responsible for full CEQA compliance for this project;

NOW, THEREFORE, based on CARB Staff's Evaluation (Attachment 1) of the documentation submitted by the Applicant (Attachment 2), I determine that the 6220 West Yucca Street Project does not result in any net additional GHG emissions pursuant to Public Resources Code section 21183, subdivision (c) for purposes of certification under AB 900.

Executed this 15th day of June 2017, at Sacramento, California.

Richard W. Corey
Executive Officer

Attachments

1. CARB Staff Evaluation of AB 900 Application for 6220 West Yucca Street Project
2. 6220 West Yucca Street Project Greenhouse Gas Emissions Methodology Documentation for AB 900 Application

If you have any questions regarding the evaluation or determination, please contact Ms. Karen Magliano, Chief, Air Quality Planning and Science Division at (916) 322-5350, or by email at karen.magliano@arb.ca.gov.

Sincerely,

Richard W. Corey
Executive Officer

Enclosures

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Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

June 15, 2017

Mr. Ken Alex, Director
Office of Governor Edmund G. Brown, Jr.
Office of Planning and Research
State Capitol
1400 10th Street
Sacramento, California 95814

Dear Mr. Alex:

The Jobs and Economic Improvement through Environmental Leadership Act (Assembly Bill 900, statutes of 2011) authorizes the Governor to certify a leadership project for streamlining under the California Environmental Quality Act (CEQA) if the project meets certain conditions. One condition for certification is that the project does not result in any net additional emissions of greenhouse gases (GHG), including GHG emissions from employee transportation, as determined by the California Air Resources Board (CARB).

On April 10, 2017, Riley Realty, L.P. (the Applicant) submitted an application to CARB with its proposed GHG quantification methodologies and supporting documentation for the proposed Yucca Argyle project (proposed project), as required by the Governor's Guidelines for Streamlining Judicial Review under CEQA. CARB staff conducted an evaluation of the GHG emission estimates and voluntary improvement measures submitted by the Applicant, and confirmed that the Applicant's methodology, calculations, and documentation are adequate. Based on the documentation submitted by the Applicant, CARB has determined the proposed project does not result in any net additional GHG emissions for purposes of certification under AB 900.

CARB staff's evaluation and an Executive Order noting CARB's determination are enclosed.

ATTACHMENT 1

ARB Staff Evaluation of AB 900 Application for

6220 West Yucca Street Project

CARB Staff Evaluation of AB 900 Application for 6220 West Yucca Street Project

June 15, 2017

I. Introduction

Riley Realty, L.P. (the Applicant) proposes to redevelop an approximately 1.16-acre (net area) property on the south side of West Yucca Street between Argyle Avenue and Vista Del Mar Avenue, generally referenced as 6220 West Yucca Street (project site), with a mixed-use residential, hotel, and commercial/restaurant project (the project). The property is located within the Hollywood community of the City of Los Angeles. There are currently 44 residential units on the project site, all of which would be demolished and removed to allow development of the project. The City of Los Angeles is the Lead Agency, and the developer is the Applicant seeking certification for the project under Assembly Bill 900 (AB 900), the Jobs and Economic Improvement through Environmental Leadership Act.

AB 900 provides for streamlined judicial review under the California Environmental Quality Act (CEQA) if certain conditions are met. One condition is that the proposed project does not result in any net additional greenhouse gas (GHG) emissions as determined by the California Air Resources Board (CARB). This is the only condition that involves a determination by CARB. CARB staff prepared this technical evaluation of the GHG emissions from the proposed project as part of its determination.

This evaluation includes an executive summary, an overview of the AB 900 zero net additional GHG emissions requirement, a brief description of the proposed project, a technical review and assessment of GHG emissions information provided by the Applicant in its AB 900 application, and CARB staff's recommendation on the AB 900 GHG emissions determination for the proposed project.

II. Executive Summary

CARB staff reviewed the projected GHG emissions provided by the Applicant and confirmed the GHG emission factors used to estimate construction and operational emissions. Staff concurs with the GHG quantification in the Applicant's proposal (Attachment 2).

Based on an evaluation of the documentation provided by the Applicant, CARB staff concludes that, with commitments to purchase voluntary carbon credits documented in Attachment 2, the proposed project would not result in any net additional GHG emissions relative to the baseline as summarized in Tables 1 and 2 below. CARB staff

confirms that the proposed project would meet the GHG emissions requirements of the Jobs and Economic Improvement through Environmental Leadership Act. (Pub. Resources Code, §21178 et seq.) A detailed description of emissions by source is reviewed in subsequent sections.

Table 1 shows project GHG emissions generated by construction activities. Project construction is expected to be completed over two to three years, with demolition activities beginning as early as 2018. The Applicant has committed to offset the GHG emissions generated during project construction. No later than six months after the issuance of a Temporary Certificate of Occupancy for the project, the applicant will provide to the lead agency, the City of Los Angeles, a calculation of the net additional emissions resulting from the construction of the project, calculated in accordance with the methodology agreed upon by CARB in connection with the AB 900 certification of the project. The applicant will provide courtesy copies of the calculations to CARB and the Governor's Office promptly following transmittal of the calculations to the City of Los Angeles. Additionally, the applicant has agreed to enter into one or more contracts to purchase voluntary carbon credits from a qualified GHG emissions broker in an amount sufficient to offset the Construction Emissions and submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office.

Table 1: Project Construction-Generated GHG Emissions[1]

Construction Year	GHG Emissions (MT CO_2e/year)
2018-2019	1,466
2020	779
Total	**2,245**
GHG Credits Required[2]	2,245

Notes:
GHG = greenhouse gas; MT CO2e = Metric tons carbon dioxide equivalent;
[1] Source: as documented in Attachment 2, and confirmed by CARB staff.
[2] Applicant committed to purchase carbon credits in an amount sufficient to offset net increase in construction-related GHG emissions. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within South Coast Air Quality Management District jurisdiction; (4) off-site within the State; and (5) off-site out of State.

Table 2 summarizes the net increase in project operation related GHG emissions through the lifetime of the proposed project, which the Applicant has defined as 30 years. The continued operation of the existing land uses that would be demolished under the proposed project serves as the reference point for the purpose of defining a baseline. The Applicant has committed to execute one or more contracts to offset the net increase in GHG emissions generated during project operation for any building in

the project prior to issuance of any Certificate of Occupancy for that building. The Applicant will purchase voluntary carbon credits for the net increase in operational emissions on a net-present value basis. The Applicant has agreed to submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office. The commitment to enter into contracts to offset net additional GHG emissions will be a condition of project approval, which represents a binding and enforceable agreement between the applicant, or its successor, and the lead agency, the City of Los Angeles.

Table 2: Comparison of Baseline and Project Operation-Related GHG Emissions[1]

Year[2]	GHG Emissions (MT CO_2e/year)			
	Baseline	Proposed Project	Difference	GHG Credits Required[3]
2021	626	5,031	4,405	4,405
2022	626	4,926	4,300	4,300
2023	626	4,805	4,179	4,179
2024	626	4,632	4,006	4,006
2025	626	4,527	3,901	3,901
2026	626	4,439	3,813	3,813
2027	626	4,299	3,673	3,673
2028	626	4,231	3,605	3,605
2029	626	4,171	3,545	3,545
2030	626	4,060	3,434	3,434
2031	626	4,017	3,391	3,391
2032	626	3,977	3,351	3,351
2033	626	3,943	3,317	3,317
2034	626	3,914	3,288	3,288
2035	626	3,891	3,265	3,265
2036	626	3,873	3,247	3,247
2037	626	3,859	3,233	3,233
2038	626	3,848	3,222	3,222
2039	626	3,840	3,214	3,214
2040	626	3,834	3,208	3,208
2041	626	3,830	3,204	3,204
2042	626	3,828	3,202	3,202
2043	626	3,827	3,201	3,201
2044	626	3,828	3,202	3,202
2045	626	3,829	3,203	3,203
2046	626	3,831	3,205	3,205
2047	626	3,834	3,208	3,208
2048	626	3,837	3,211	3,211
2049	626	3,841	3,215	3,215
2050	626	3,847	3,221	3,221
Total				**103,669**

Notes: GHG = greenhouse gas; MT CO_2e = Metric tons carbon dioxide equivalent.
[1] Source: as documented in Attachment 2, and confirmed by CARB staff.
[2] Applicant estimates a useful life of project of 30 years with first year of occupancy as early as 2021
[3] Applicant commits to purchase carbon credits in an amount sufficient to offset net increase in operation-related GHG emissions. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within South Coast Air Quality Management District jurisdiction; (4) off-site within the State; and (5) off-site out of State.

III. Overview of AB 900

AB 900, as amended by SB 743 (2013) and SB 734 (2016) provides streamlined judicial review for development projects if, among other conditions, the "project does not result in any net additional emission of greenhouse gases, including greenhouse gas emissions from employee transportation, as determined by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code." (Pub. Resources Code, §21183, subd. (c).)

The Governor's Guidelines for AB 900 applications require applicants to submit a proposed methodology for quantifying the project's GHG emissions and documentation that the project will not result in any net additional GHG emissions. The documentation must quantify direct and indirect GHG emissions associated with the project's construction and operation, including GHG emissions from employee transportation, and the net emissions of the project after accounting for any mitigation measures. The project's net emissions, after mitigation, must be monitored and enforced consistent with Public Resources Code section 21183, subdivision (d).

The role of CARB in reviewing AB 900 applications for purposes of the Governor's certification is limited to an evaluation of the quantification methods and documentation submitted by the Applicant to determine whether the project would result in no net additional emissions of GHG emissions. CARB staff evaluated the technical elements of the project application, including existing emissions in the absence of the project (i.e., baseline), input data and assumptions used for emissions and mitigation calculations, quantification methods, and an estimate of the project's net GHG emissions after any mitigation.

IV. Existing Conditions

The proposed project site is located within the Hollywood community of the City of Los Angeles. There are currently one single family residence, one duplex with a detached garage and studio apartment over garage, and three, two-story apartment buildings and associated carports and paved surface parking areas. Overall, there are a total of 44 residential units on the project site.

V. Proposed Project Description

The proposed project would involve construction of a mixed-use development including 210 multi-family residential units in 202,545 square feet, 136 hotel rooms in 58,540 square feet, and approximately 12,500 square feet of commercial/restaurant uses in two buildings. Building 1, up to 20 stories tall on the southeast corner of Argyle Avenue and Yucca Street, would include all three uses and would be built over six levels of parking,

including two fully subterranean levels, two semi-subterranean levels, and two levels above ground. Building 2, located on the southwest corner of Vista Del Mar and Yucca Street would include three residential levels over a two-level podium parking structure (including one subterranean level and one at-grade level). Building 2 would be a total of four stories above ground and would contain only residential uses. In total, the Project would be approximately 273,585 square feet. The baseline and proposed land uses are summarized in Table 3.

Table 3: Baseline and Proposed Land Uses

Land Use Type	Baseline Land Uses to be Demolished	Proposed Land Uses
Residential/Apartments	20,319 sf (44 du)	202,500 sf (210 du)
Hotel	-	58,500 sf
Retail	-	3,500 sf
Restaurant	-	9,100 sf
Fitness Center	-	2,500 sf
Pool/Deck/Spa	-	4,800 sf
Open Space/Amenities	-	18,500 sf
Enclosed Parking	-	89,200 sf
Unenclosed Parking	28,000 sf	100,500 sf

Notes:
du = dwelling units, sf = square feet
Source: as documented in Attachment 2, and confirmed by CARB staff.

Construction is proposed to begin as early as 2018 and conclude in 2020. The proposed project was assumed to become operational as early as 2021.

The Applicant is seeking Leadership in Energy and Environmental Design (LEED) Silver certification for energy efficiency for the proposed project, and would install a minimum of 30 kilowatt (kW) photovoltaic (PV) system, which would generate approximately 1.7 percent of the project's annual electrical demand on-site.

In addition, the project would be located within a 0.25 mile walking distance to multimodal transportation choices, including the existing Metro Red Line (Hollywood and Vine Station) and bus lines. The project would provide short- and long-term bicycle parking and showers for bicycle commuters to facilitate "last mile" connectivity to transit options. Additionally, the project would provide electric vehicle charging stations and preferential parking for alternative fueled vehicles. A transportation demand management (TDM) program will be implemented to reduce the project's single

occupant vehicles trips and increase the trips arriving via alternative modes of transportation (e.g., walking, bicycle, carpool, vanpool, and transit). The TDM program would include design features, transportation services, education, and incentives intended to reduce the amount of single occupant vehicles during commuter peak hours.

VI. Technical Review and Assessment

Environmental Science Associates, on behalf of the Applicant, prepared a GHG emissions assessment for the proposed project to demonstrate that the requirements of AB 900 can be met. A full copy of this proposal can be found in Attachment 2.

The Applicant relied upon a variety of sources for activity data and emission factors to quantify GHG emissions. This CARB staff evaluation is focused on reviewing the data sources, emission factors, emission calculations, and assumptions used for the application, and determining whether these sources and assumptions are reasonable.

The Applicant relied upon Version 2016.3.1 of the California Emissions Estimator Model (CalEEMod), a widely-used emissions quantification tool developed in coordination with local air districts to quantify criteria pollutant and GHG emissions from land use development projects in California. CalEEMod uses widely-accepted sources for emission estimates combined with appropriate default data that can be used if site-specific information is not available. CalEEMod is populated with data from the United States Environmental Protection Agency AP-42 emission factors, CARB's on-road and off-road equipment emission models such as the Emission Factor 2014 model (EMFAC2014), and the Off-road Emissions Inventory Program model (OFFROAD). The Applicant used the latest CalEEMod version including correction factors to account for compliance with the 2016 Title 24 Building Standards Code, in combination with project-specific data and CARB's EMFAC 2014 mobile-source emission factors, to calculate GHG emissions from construction and operational emissions.

VII. Project Construction Emissions

Construction-related GHG emissions, including demolition-related emissions, are one-time, direct emissions and would occur over an approximately two to three-year construction period. The Applicant estimated GHG emissions associated with project construction by using the CalEEMod tool. With some exceptions, the Applicant used CalEEMod default settings to generate construction-related GHG emissions. The Applicant estimates a total of 2,245 metric tons carbon dioxide equivalent (MT CO_2e) over the project construction period, as shown in Table 1. Construction-related GHG emissions reflect the types of equipment expected and the number of hours of operation

anticipated over the construction schedule. This includes heavy-duty equipment, such as refuse hauling trucks, excavators, cranes, and conventional work vehicles.

CARB staff concluded that the methodology and estimated GHG emissions provided by the Applicant for construction are appropriate.

VIII. Baseline Operational Emissions

Operational emissions from land uses at the existing project site that would be demolished and removed as part of the project represent baseline conditions. Operational emissions in year 2015 serves as the baseline for purposes of this analysis, which represents existing conditions at the time the Notice of Preparation was issued for the project. GHG emissions were quantified for mobile, electricity, natural gas, area, solid waste, water, and wastewater-related sources. The application states that GHG emissions associated with existing conditions in 2015 are estimated as 626 MT CO_2e.

CARB staff evaluated the Applicant's GHG emission estimations, demand factors, and assumptions used in the Applicant's baseline calculations, summarized in Table 2 above. CARB staff concluded that the methodology and estimated baseline GHG emissions provided by the Applicant are appropriate.

IX. Proposed Project Operational Emissions

Operational GHG emission sources from the proposed project include mobile, electricity, natural gas, area, stationary, solid waste, water, and wastewater sources. Operational GHG emissions from the proposed project were assumed to begin in 2021.

The proposed project is seeking LEED Silver certification for energy efficiency and would include an on-site solar PV system with minimum 30 kW of renewable electricity generation capacity.

The Applicant used GHG emission factors for electricity from Los Angeles Department of Water and Power, that will change over time due to the California Renewable Portfolio Standard (RPS), a program designed to require 33 percent of grid electricity to come from renewable sources by 2020, and 50 percent renewable sources by 2030. Additionally, mobile-source emission factors used were based on the CARB EMFAC2014 on-road inventory. Declining mobile-source emission factors were used to estimate GHG emissions from vehicles over the project's lifetime, which reflect additional improvements in fleet fuel economy due to CARB's Advanced Clean Cars regulations, and were not reflected in CalEEMod.

CalEEMod default emission factors and calculation methods were also used to estimate GHG emissions from natural gas, solid waste disposal, water consumption, and area sources. The Applicant did not use CalEEMod to estimate stationary GHG emission sources (emergency generators). Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines). Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

The Applicant's assumptions and inputs are reasonably conservative, and represent an upper-bound for the net increase in GHG emissions that could occur. CARB staff evaluated the proposed project's emission calculations, demand factors, and assumptions used to estimate operational GHG emissions and concluded that the methodology and estimated operational GHG emissions provided by the Applicant are appropriate.

Based on the Applicant's proposal, annual project operational emissions would exceed baseline throughout the lifetime of the project, as summarized in Table 2.

X. Method to Offset Emissions

Under the GHG quantification methodology used by the Applicant, the proposed project would result in a one-time net GHG emissions increase of 2,245 MT CO2e during project construction, and an estimated net increase of 4,405 MT CO2e during the first year of full project operation (2021).

Operational emissions would be on-going for the duration of the project life (defined as 30 years), and would be expected to decline over the life of the project as emission factors decline associated with adoption of lower-GHG-emitting vehicle technologies and renewable sources of electricity. The Applicant has agreed to meet the requirement set forth in California Public Resources Code section 21183, subdivision (c) to demonstrate that the proposed project would result in no net additional GHG emissions through the purchase of voluntary carbon credits sufficient to offset all projected additional GHG emissions, as detailed in Attachment 2. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within South Coast Air Quality Management District jurisdiction; (4) off-site within the State; and (5) off-site out of State, following direction provided in South Coast Air Quality Management District's Governing Board Agenda Item 31, December 5, 2008, and consistent with policy recommendations included in CARB's Proposed 2017 Climate Change Scoping Plan Update. The Applicant will purchase voluntary carbon credits for the net increase in

construction and operational emissions prior to issuance of any Certificate of Occupancy for the project. The commitments to enter into contracts to offset net additional GHG emissions will be incorporated as condition of project approval, which represents a binding and enforceable agreement between the Applicant and the lead agency, the city of Los Angeles. The Applicant has agreed to submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office as evidence that this condition has been met.

XI. Conclusions and Recommendations

Based on an evaluation of the documentation provided by the Applicant and its commitment to purchase voluntary carbon credits, CARB staff concludes that the proposed project would not result in any net additional GHG emissions relative to the baseline.

ATTACHMENT 2

Greenhouse Gas Emissions Methodology Documentation for Environmental Leadership Development Project Application

6220 West Yucca Street Project

(Originally Submitted April 10, 2017 and Revised June 12, 2017)

GREENHOUSE GAS EMISSIONS METHODOLOGY AND DOCUMENTATION FOR THE 6220 WEST YUCCA PROJECT

Application for CEQA Streamlining Under the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.)

Prepared for
Champion Real Estate Company
11620 Wilshire Boulevard
Suite 1150
Los Angeles, CA 90028

June 2017

ESA

GREENHOUSE GAS EMISSIONS METHODOLOGY AND DOCUMENTATION FOR THE 6220 WEST YUCCA PROJECT

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OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

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1.0
Executive Summary

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the Yucca Mixed-Use project ("the project") and to demonstrate that the project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act ("the Act") (Public Resources Code Section 21178 et seq.), also referred to as Assembly Bill (AB) 900. In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. In 2016, Senate Bill (SB) 734 was signed, which extend the authority of the Governor to certify a project to January 1, 2018 and provides that the certification expires and is no longer valid if the lead agency fails to approve a certified project before January 1, 2019. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c).

The project is located at 6220 West Yucca Street in the Hollywood community of the City of Los Angeles. The approximately 1.16-acre project site occupies a parcel on Yucca Street ("the project site"). The property currently contains two single-family residences (one single-family residence operates as a multi-family duplex) and three, two-story apartment buildings (for a total of one single-family and 43 multi-family residences) and associated carports and paved surface parking areas. The existing uses would be demolished and removed from the site.

The proposed mix of uses would be developed within two buildings: Building 1 with a mix of residential, hotel and commercial/restaurant uses; and Building 2 with only residential uses. Each building would provide parking for its proposed uses. The total development would include 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses. Parking for Building 1 would be provided within a six-level parking structure housed within the podium structure of Building 1 and a two-level parking structure housed within Building 2. The project would also provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16. Construction of the project would be completed over approximately two years.

Under the Baseline Condition, the site generates approximately 625 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year. This excludes any one-time construction GHG emissions that were generated when the existing uses and related infrastructure were originally built. Construction of the project would generate one-time GHG emissions of approximately 1,466 $MTCO_2e$, during the first year, and 779 $MTCO_2e$ during the second year. At project buildout, emissions of approximately 5,031 $MTCO_2e$ would be generated during the first full year of operation. Compared to the Baseline Condition, the project's operational GHG emissions represent a net increase in GHG emissions from the site of approximately 4,405 $MTCO_2e$ during the first full year of operation. The net project operational GHG emissions would decline in future years primarily as a result of vehicle fleet turnover and as utilities provide a greater percentage of electricity from renewable sources. However, the project will obtain GHG offsets that would allow the project to have no net increase in GHG emissions. Future year emissions would decline as a greater percentage of motor vehicles meet more stringent emissions standards, including the Pavley Phase I and Phase II emissions standards, and the a greater percentage of electricity is provided by renewable sources in accordance with the Renewables Portfolio Standard, which requires 50 percent renewable electricity by 2030. As a result, the project would generate decreased GHG emissions in future years and would require decreased offsets to achieve no net increase in GHG emissions.

Based on this assessment, the project would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). Therefore, the project would meet the GHG emissions requirements for streamlined environmental review under CEQA.

2.0 Introduction

2.1 Purpose

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the project and to demonstrate that the project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act ("the Act") (Public Resources Code Section 21178 et seq.). This assessment describes the methodology used to estimate the GHG emissions from baseline and project conditions, provides an estimate of the net change in GHG emissions for the project as compared to baseline conditions, and describes the methodology used to quantify GHG emission reductions from project design features and mitigation measures. The following baseline and project-related emission sources have been evaluated:

- Construction Activities – Fossil fueled on- and off-road vehicles and equipment needed for demolition, mass and fine grading, building construction, paving, and architectural coating;
- Direct Emission Sources – Consumption of natural gas on-site for cooking, space heating and water heating, combustion of fossil fuels for lawn care and maintenance activities, and motor vehicles including employee transportation; and
- Indirect Emission Sources – Off-site electricity generation, wastewater treatment and water conveyance, and solid waste disposal.

2.2 Site Location, Existing Uses, and Project Description

The project is located at 6220 West Yucca Street in the Hollywood community of the City of Los Angeles approximately five miles northwest of Downtown Los Angeles. The 1.16-acre project site occupies a parcel on Yucca Street. The project site is bounded by Yucca Street, the Argyle Hotel project construction site, and 3-story residential lofts to the north; North Vista Del Mar Avenue and 1- and 2-story single-family residences and duplexes to the east; vacant land (former Little Country Church of Hollywood) and 1- and 2-story single-family residences and duplexes followed by a 5-story mixed-use residential and commercial development to the south; and Argyle Avenue and commercial uses to the west. The property currently contains two single-family residences (one single-family residence operates as a multi-family duplex) and three, two-story apartment buildings (for a total of one single-family and 43 multi-family residences) and

associated carports and paved surface parking areas. The existing uses would be demolished and removed from the site.

The project would consist of two buildings over a single podium structure: one, 20-story high-rise tower as measured from Yucca Street (Building 1) and one, 4-story building along Yucca Street and Vista Del Mar Avenue (Building 2). Building 1, located on the corner of Yucca Street and Argyle Avenue, would include a mix of residential, hotel and commercial/restaurant uses while the adjoining Building 2 would contain residential uses. The total development would include 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses. Parking would be provided on-site within the six-level parking structure housed within the podium structure of Building 1 and the two-level parking structure housed within Building 2. The project would also provide 402 bicycle parking spaces, which is consistent with that required by Los Angeles Municipal Code (LAMC) Section 12.21.A.16

Construction of the project would be completed over an approximately two-year period. The project would export approximately 120,000 cubic yards of soil and generate approximately 5,000 cubic yards of demolition debris (asphalt, interior and exterior building demolition, and general construction debris).

The project site and surrounding uses are shown in **Figure 1**. The site plan for the project is provide in **Figure 2**.

2.3 Jobs and Economic Improvement Through Environmental Leadership Act

In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). For purposes of California Public Resources Code Section 21183(c) the following process applies:

1. The applicant shall submit electronically to AB900ARBsubmittals@arb.ca.gov a proposed methodology for quantifying the project's net additional GHG emissions. The CARB will review and comment on the methodology, at its discretion, within 30 days of submission.

2. At the same time, the applicant shall submit to AB900ARBsubmittals@arb.ca.gov documentation that the project does not result in any net additional GHG emissions. The documentation must at least quantify:

a. Both direct and indirect GHG emissions associated with the project's construction and operation, including emissions from the project's projected energy use and transportation related emissions; and

b. The net emissions of the project after accounting for any mitigation measures that will be monitored and enforced consistent with Public Resources Code section 21183(d).

3. Within 60 days of receiving the documentation (in 2. above), the CARB will determine whether the condition specified in Public Resources section 21183(c) has been met or, if more time is needed, notify the applicant of the expected completion date.

4. The CARB will determine and report to the Governor in writing that a project does not result in any net additional emissions of greenhouse gases if the project demonstrates through a combination of project design features, compliance with (or exceeding minimum requirements of) existing regulations, and mitigation that it would result in zero additional greenhouse gas emissions.



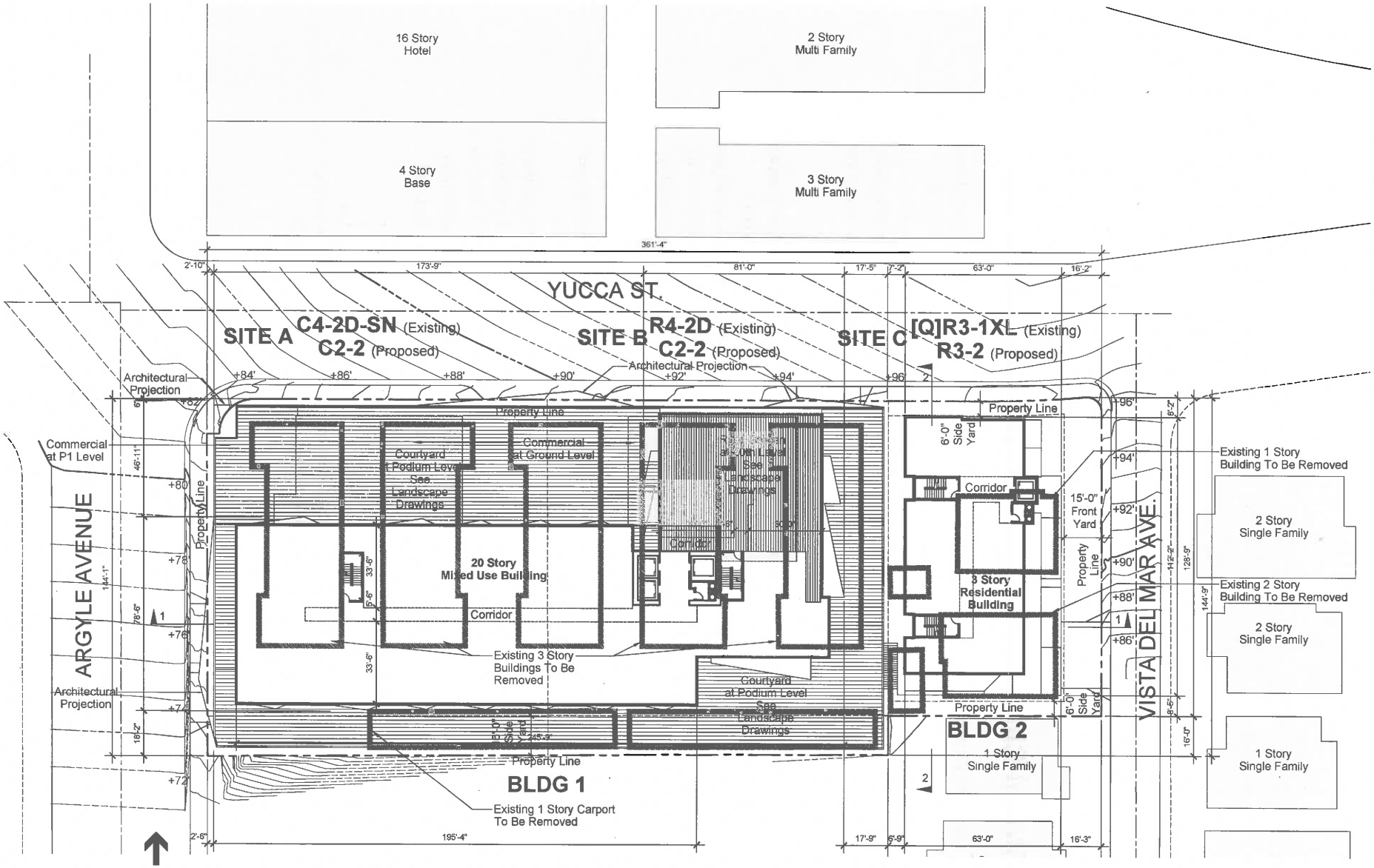
SOURCE: Google Earth, 2014-04-23 (Aerial)

6220 West Yucca Project

Figure 1

Aerial Photograph of Project Site and Vicinity

ESA PCR



SOURCE: Togawa Smith Martin, Inc., 2017

6220 West Yucca Project

Figure 2
Proposed Site Plan

ESA PCR

3.0
Greenhouse Gas Emissions

3.1 Global Climate Change and Greenhouse Gases

The natural process through which heat is retained in the troposphere[1] is called the "greenhouse effect." The greenhouse effect traps heat in the troposphere through a three-fold process as follows: (1) short wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave radiation re-emitted by the Earth; and (3) GHGs in the atmosphere absorbing or trapping the long-wave radiation and re-emitting it back towards the Earth and into space. This third process is the focus of global climate change actions.

The most commonly emitted GHG from anthropogenic (i.e., human) activities is carbon dioxide (CO_2). 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 (CO_2e). Mass emissions are calculated by converting pollutant-specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value.[2] 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 are currently in use by the State of California for official GHG emission inventory purposes. By applying the GWP ratios, project-related CO_2e emissions can be tabulated in metric tons of CO_2e ($MTCO_2e$) per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. The CO_2e 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.

- Carbon Dioxide (CO_2): CO_2 is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO_2 is the reference gas (GWP of 1) for determining the GWPs of other GHGs.

1 The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

2 GWPs and associated CO2e values were developed by 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 California Air Resources Board (CARB) has begun reporting GHG emission inventories for California, starting with the 2012 inventory, using the GWP values from the IPCC AR4.

- Methane (CH_4): CH_4 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 CH_4 is 21 in the IPCC SAR and 25 in the IPCC AR4.

- Nitrous Oxide (N_2O): N_2O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary 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.

- 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 GWPs of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23 in the IPCC SAR and 124 to 14,800 in the IPCC AR4.

- 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.

- 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.

The Climate Registry (TCR) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities.[3] No specific protocols are available for land use development projects; however, the General Reporting Protocol has been adapted to address the land use development GHG emissions in this assessment. The information provided in this assessment is generally consistent with the General Reporting Protocol minimum reporting requirements. The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

- Scope 1: Direct GHG emissions from human activity (e.g., stationary combustion of fuels, mobile combustion of fuels in transportation).

- Scope 2: Indirect GHG emissions associated with activities of the reporting entity but occur at sources controlled by another entity (e.g., purchased electricity or purchased steam).

- Scope 3: Indirect emissions associated with other emissions sources, such as employee commute and business travel and waste disposal.

According to the California Air Resources Board (CARB), the consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities

[3] The Climate Registry, General Reporting Protocol, Version 2.1, (2016).

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.[4] 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 consumption, water usage and construction activities."[5] Therefore, direct and indirect emissions are considered in this assessment.

3.2 Baseline Operational Emissions

3.2.1 Description of Baseline Condition

The project site encompasses approximately 1.16 acres of land area currently occupied by two single-family residences and three, two-story apartment buildings and associated carports, as shown in Figure 1. The majority of the buildings were originally constructed between 1915 and the 1950s and some repair work was completed in the 1970s. The project would demolish and removed the existing structures and associated infrastructure from the project site and the existing uses would be vacated prior to construction and would cease to operate. Therefore, the GHG emissions from the existing site uses would not occur contemporaneously with either project construction emissions or project operational emissions. The square footage for these existing land uses are provided in **Table 1**.

TABLE 1
BASELINE CONDITION FLOOR AREA

Land Use	Number of Units	Square Feet (sqft)
Multi-Family Residential	43	18,952
Single-Family Residential	1	1,367
Parking Lot/Hardscape Areas	—	28,000

SOURCE: Champion Real Estate Company / Togawa Smith Martin, Inc., 2016.

4 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).

5 Office of Planning and Research, Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review, (2008) 5.

3.2.2 GHG Emission Sources and Calculation Methodology

Construction

The project site is currently built-out. Construction of the buildings and associated parking areas and infrastructure resulted in one-time GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O from heavy-duty construction equipment, haul trucks, and worker vehicles. However, sufficient detail is not available with respect to the construction schedule, equipment usage, and number of haul trips to provide a quantitative construction GHG emissions assessment for the Baseline Condition. Therefore, construction-related GHG emissions are not included for the Baseline Condition. This is a conservative approach since, by excluding the Baseline Condition construction-related GHG emissions, the project would need to provide slightly greater GHG reductions in order to meet the requirements of AB 900 of no net additional GHG emissions.

Operational Energy – Electricity

The generation of electricity in California is achieved through the combustion of fossil fuels, primarily natural gas, using steam boilers, internal combustion engines, and combustion turbines. A portion of the electricity in California is imported from outside the state and is derived from the combustion of coal and other non-gaseous fossil fuels. The combustion of fossil fuels to produce electricity results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. These emissions occur due to the electrical demand of the existing land uses that currently operate on the project site. The electricity generation occurs off-site; therefore, electricity use results in GHG emissions that are considered to be indirect.

Emissions of GHGs associated with the Baseline Condition energy demand are based on the size of the hospital, administration, and supporting land uses, the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions in units of $MTCO_2e$ are generally calculated as follows:

Electricity:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_E \times EF_E \times GWP)_i \right) \div 2204.62 \quad \textbf{[Equation 1]}$$

Where:
- Units = Number of land use units (same land use type) [dwelling unit (DU) or 1000 sqft]
- D_E = Electrical demand factor [megawatt-hour (MWh)/DU or 1000 sqft/year]
- EF_E = GHG emission factor [pounds per megawatt-hour (MWh)]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 2204.62 = Conversion factor [pounds/MT]
- i = Summation index

Electrical demand is based on data from the California Energy Commission (CEC) *California Commercial End Use Survey* (CEUS), which lists energy demand by building type,[6] as incorporated into the California Emissions Estimator Model (CalEEMod).[7] The data from the CEUS is from 2002. Since 1978, the CEC has established building energy efficiency standards, which are updated periodically. CalEEMod (version 2016.3.1) incorporates correction factors to account for the 2013 Title 24 Building Energy Efficiency Standards. The existing buildings on the project site were built in the 1900s (as early as 1915 through the 1950s with some repair work in the 1970s). Thus, the building electricity usage rates are adjusted to account for the prior 2001 Title 24 Building Energy Efficiency Standards.[8] This is considered a conservative adjustment because the existing buildings were built prior to implementation of the 2001 Standards and thus would have been built to a less stringent energy standard and data is not readily available to adjust usage factors prior to the 2001 Standards. Parking lot and hardscape areas result in electricity usage due to lighting needs and were included as sources.

The Los Angeles Department of Water and Power (LADWP) provides electric service to the project site. Emission factors for GHGs due to electrical generation to serve the electrical demands of the Baseline Condition were obtained from the LADWP 2016 Draft Power Integrated Resource Plan, which provides a CO_2 intensity of 1,132 pounds of CO_2 per MWh in 2015 (the most recent year for which data is provided).[9] LADWP has achieved average renewable energy sales of approximately 20 percent for the 2010 through 2013 period.[10] Emission factors for CH_4 and N_2O were obtained from CalEEMod.[11]

The estimated annual emissions from electrical demand from the Baseline Condition are provided in **Table 2**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 2
BASELINE CONDITION ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
Existing Site						
Multi-Family	18.95	157.69	1,132	0.029	0.0062	81.1
Single-Family	1.37	7.28	1,132	0.029	0.0062	3.7
Parking/Hardscape	28.00	24.64	1,132	0.029	0.0062	12.7
Subtotal						**98**

6 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017

7 See: http://www.caleemod.com.

8 California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

9 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

10 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-1.

11 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

NOTES:

[a] California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors are extrapolated based on the technical source documentation.

[b] Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Energy – Natural Gas

The existing land uses under the Baseline Condition utilize natural gas primarily for heating needs. Natural gas is also used for cooking. The combustion of natural gas results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The combustion of natural gas occurs on-site; therefore, the associated GHG emissions are considered to be direct.

The emissions of GHGs associated with natural gas combustion under the Baseline Condition are based on the size of the existing land uses, the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu), the GHG emission factors for natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions in units of $MTCO_2e$ are generally calculated as follows:

Natural Gas:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_{NG} \times EF_{NG} \times GWP)_i \right) \div 2204.62 \quad \textbf{[Equation 2]}$$

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- D_{NG} = Natural gas combustion factor [MMBtu/DU or 1000 sqft/year]
- EF_{NG} = GHG emission factor [pounds/MMBtu]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 2204.62 = Conversion factor [pounds/MT]
- i = Summation index

Similar to the electricity calculations, natural gas demand is based on data from the CEUS, which lists energy demand by building type, as incorporated into CalEEMod. As discussed previously, the existing buildings on the project site were built in the 1900s (as early as 1918 through the 1950s with some repair work in the 1970s). Thus, the building natural gas usage rates are adjusted to account for the prior 2001 Title 24 Building Energy Efficiency Standards. This is considered a conservative adjustment because the existing buildings were built prior to implementation of the 2001 Standards and thus would have been built to a less stringent energy standard and data is not readily available to adjust usage factors prior to the 2001 Standards. Parking lot and hardscape areas do not result in natural gas combustion and were excluded as sources.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Baseline Condition were obtained from CalEEMod, which provides statewide emission factors.

The estimated annual emissions from natural gas combustion from the Baseline Condition are provided in **Table 3**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 3
BASELINE CONDITION NATURAL GAS GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_{NG} (MMBtu/year) [a]	Emission Factor, EF_{NG} (pounds/MMBtu)			Annual GHG Emissions ($MTCO_2e$/year) [c]
			CO_2 [b]	CH_4 [b]	N_2O [b]	
Existing Site						
Multi-Family	18.95	706.30	117.65	0.0023	0.0022	37.9
Single-Family	1.37	36.50	117.65	0.0023	0.0022	2.0
Subtotal						**40**

NOTES:

[a] California Air Resources Board, CalEEMod User's Guide, Appendix D, Section 5, September 2016, http://caleemod.com/. Accessed January 2017. Factors are extrapolated based on the technical source documentation.

[b] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Mobile

Mobile source emission calculations associated with the Baseline Condition are calculated using vehicle miles traveled (VMT) from the traffic analysis prepared for the project.[12] The estimated VMT in the traffic analysis is based on average trip lengths for each land use were determined using CalEEMod. The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work (H-W), home-shop (H-S), and home-other (H-O). Commercial trips include commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type and accounting for applicable reductions from proximity to transit and other VMT-reducing land use characteristics.

The analysis is also based on the CARB on-road vehicle emissions factor model (EMFAC). EMFAC2014 "represents ARB's current understanding of motor vehicle travel activities and their

[12] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017.

associated emission levels."[13] Emissions of GHGs associated with mobile sources under the Baseline Condition are based on the average daily trip rate, trip distance, the GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. The types of vehicles that visit the project site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the Baseline Condition was conducted using the vehicle fleet mix for the South Coast Air Basin for all vehicle types as provided in EMFAC2014.

Emission factors were obtained from EMFAC2014, which was run in the emissions mode (also referred to as the "Burden" mode) and used to generate South Coast Air Basin-specific vehicle fleet emission factors in units of grams or metric tons per mile, which is the same methodology used by CalEEMod. Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing project site. The emissions were calculated using a representative motor vehicle fleet mix for year 2015 as provided in EMFAC2014. Mobile source emissions are the product of the CalEEMod estimated VMT and the EMFAC2014 emission factors. The estimated annual emissions from mobile sources from the Baseline Condition are provided in **Table 4**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 4
BASELINE CONDITION MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Land Use	Fleet Mix	Estimated Annual VMT [a]	Annual GHG Emissions ($MTCO_2e$/year)
Existing Site			
Multi- and Single-Family	South Coast Air Basin Fleet Mix (Existing Conditions)	939,145	454
Subtotal			**454**

NOTES:

[a] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017. Based on the estimated daily VMT multiplied by 365 days per year.

SOURCE: ESA 2017.

Operational Solid Waste

The existing land uses under the Baseline Condition generate municipal solid waste (MSW) from day-to-day operational activities, which generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, paper, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills

[13] California Air Resources Board, Mobile Source Emissions Inventory, http://www.arb.ca.gov/msei/categories.htm#emfac2014. Accessed January 2017.

results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal under the Baseline Condition are calculated using CalEEMod. The emissions are based on the size of the existing land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ are generally calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_{MSW} \times EF_{MSW} \times GWP)_i \right) \div 1.1023$$

[Equation 3]

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- D_{MSW} = Waste disposal rate [tons/DU or 1000 sqft/year]
- EF_{MSW} = GHG emission factor [tons/ton waste]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 1.1023 = Conversion factor [tons/MT]
- i = Summation index

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. Annual waste disposal rates used in CalEEMod are based on data from the California Department of Resources Recycling and Recovery (CalRecycle).[14] The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of approximately 76 percent, according to the most recent data available.[15] The GHG emission factors, particularly for CH_4, 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), which are statewide averages, are used in this assessment.

The estimated annual emissions from solid waste disposal from the Baseline Condition are provided in **Table 5**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 5
BASELINE CONDITION SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use	Waste Diversion Rate [a]	Waste Disposal after Diversion, D_{MSW} (tons/year) [b]	Annual GHG Emissions ($MTCO_2e$/year) [c]
Existing Site			
Multi-Family	76%	23.03	11.58

14 CalRecycle, Estimated Solid Waste Generation Rates. Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed January 2017.
15 City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

Single-Family	76%	0.54	0.27
Subtotal			**12**

NOTES:

[a] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

[b] Waste generation factors for the land uses are from the CalRecycle (formerly Integrated Waste Management Board), Estimated Solid Waste Generation Rates, Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed October 2015.

[c] Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the Baseline Condition requires energy to supply, distribute and treat. The combustion of fossil fuels to produce electricity results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The electricity generation occurs off-site; therefore, the electricity use from water and wastewater results in GHG emissions that are considered to be indirect. Wastewater also results in emissions of GHGs from wastewater treatment systems (e.g., septic, aerobic, or lagoons) as well as from solids that are digested either through an anaerobic digester or with co-generation from combustion of digester gas.

The emissions of GHGs associated with water demand and wastewater generation under the Baseline Condition are calculated using CalEEMod. The emissions are based on the size of the existing land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times D_W \times (EI_W \div 1000) \times EF_W \times GWP)_i\right) \div 2204.62$$

[Equation 4]

Where:

Units	=	Number of land use units (same land use type) [DU or 1000 sqft]
D_W	=	Water demand factor [million gallons (Mgal)/DU or 1000 sqft/year]
EI_W	=	Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
1000	=	Conversion factor [kWh/MWh]
EF_W	=	GHG emission factor [pounds/MWh]
GWP	=	Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
2204.62	=	Conversion factor [pounds/MT]
i	=	Summation index

The estimated water demand is based on usage factors from the City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR) report.[16] Parking lot and hardscape areas typically result outdoor water usage for cleaning purposes and were included as sources.

The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report Refining Estimates of Water-Related Energy Use in California, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.[17] The same electricity GHG emissions factors discussed under the **Operational Energy – Electricity** subheading are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the California Emissions Estimator Model User's Guide, Appendix A.[18] As stated in the User's Guide, the GHGs emitted from each type of wastewater treatment are based on the CARB's Local Government Operations Protocol (LGOP),[19] which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.[20] The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

The estimated annual emissions from water and wastewater from the Baseline Condition are provided in **Table 6**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 6
BASELINE CONDITION WATER AND WASTEWATER GAS GREENHOUSE GAS EMISSIONS

Land Use	Water Demand, D_W (gal/year) [a]	Electricity Intensity Factor, EI_W (kWh/Mgal) [b]				Annual GHG Emissions ($MTCO_2e$/year) [c]
		Supply	Treat	Distribute	Treatment	
Existing Site						
Multi-Family	2,336,730	9,727	111	1,272	1,911	17.9
Single-Family	81,030	9,727	111	1,272	1,911	0.6
Parking/Hardscape	245,280	9,727	111	1,272	1,911	1.4
Subtotal						**20**

16 City of Los Angeles, Bureau of Engineering, Sewer Capacity Availability Request (SCAR), January 2017.
17 California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).
18 California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, (2016).
19 California Air Resources Board, Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008).
20 United States Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008).

NOTES:

[a] City of Los Angeles, Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Provided in the L.A. CEQA Thresholds Guide, (2006) M.2-22-M.2-26. Water demand rates are derived based on the wastewater generation rates.

[b] California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix A.**

SOURCE: ESA 2017.

Operational Area and Stationary

Area sources of GHG emissions resulting from the operation of the existing land uses at the project site under the Baseline Condition include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. The emissions occur on-site and are a direct result of activity from the existing land uses; therefore, the GHG emissions are considered to be direct. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers.

The emissions of GHGs associated with operational area sources under the Baseline Condition are calculated using CalEEMod. The emissions for landscaping equipment are based on the size of the hospital, administrative, and support land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of $MTCO_2e$ are generally calculated in CalEEMod as follows:

Landscaping Equipment:

$$\text{Annual Emissions } [MTCO_2e] = \left(\sum_i (\text{Units} \times EF_{LE} \times A_{LE} \times GWP)_i \right) \div 10^6 \qquad \textbf{[Equation 5]}$$

Where:
- Units = Number of land use units (same land use type) [DU or 1000 sqft]
- EF_{LE} = GHG emission factor [grams (g)/DU or 1000 sqft/day]
- A_{LE} = Landscaping equipment operating days per year [day/year]
- GWP = Global warming potential [$CO_2 = 1$, $CH_4 = 25$, $N_2O = 298$]
- 10^6 = Conversion factor [g/MT]
- i = Summation index

CalEEMod uses landscaping equipment GHG emission factors from the CARB off-road equipment emissions factor model (OFFROAD) and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.[21] CalEEMod estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

[21] California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003),

The estimated annual emissions from area and stationary sources under the Baseline Condition are provided in **Table 7**. Detailed emissions calculations are provided in **Appendix A**.

TABLE 7
BASELINE CONDITION AREA AND STATIONARY SOURCE GREENHOUSE GAS EMISSIONS

Land Use	Source	Annual GHG Emissions ($MTCO_2e$/year) [c]
Existing Site		
Multi- and Single-Family	Landscaping Equipment	2
Subtotal		**2**

SOURCE: ESA 2017.

Summary of Baseline Condition GHG Emissions

A summary of the GHG emissions under the Baseline Condition is provided in **Table 8**.

TABLE 8
BASELINE CONDITION SUMMARY OF ANNUAL GREENHOUSE GAS EMISSIONS

Source	Annual GHG Emissions ($MTCO_2e$/year) [a]
Existing Site	
Electricity	98
Natural Gas	40
Mobile	454
Solid Waste	12
Water and Wastewater	20
Area and Stationary	2
Total	**626**

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations.

SOURCE: ESA 2017.

http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_ act.pdf. Accessed January 2017.

3.3 Project Construction and Operational Emissions

3.3.1 Description of Project Condition

The project would demolish all existing buildings and surface parking/hardscape on the site (approximately 20,319 square feet of building floor area and approximately 28,000 square feet of surface parking/hardscape). The project would construct approximately 197,750 net square feet of residential uses (or approximately 240,450 gross square feet of residential uses – including common areas, corridors, and shafts) within 210 multi-family residential units; approximately 57,740 net square feet of hotel use (or approximately 80,335 gross square feet of hotel uses) with 136 hotel rooms; and 12,500 square feet or commercial/restaurant uses.

For the purposes of this assessment, in order to provide a comparison of the project's GHG emissions with the Baseline Condition, and to assess future GHG emissions trends of the project, emissions of GHGs are estimated for the project's construction and operational lifetime. Within the project's operational lifetime, there are several key milestone years. The milestone years correspond to the following circumstances:

- 2021: Expected initial operational year (electric utilities, including LADWP, are expected to supply a minimum of 33 percent of electricity via renewable sources during this year);
- 2024: The year in which electric utilities, including LADWP, are expected to supply a minimum of 40 percent of electricity via renewable sources;
- 2025: The year in which the model year 2017-2025 light-duty vehicle GHG emissions and Corporate Average Fuel Economy standards are to be fully implemented for new vehicles;
- 2027: The year in which electric utilities, including LADWP, are expected to supply a minimum of 45 percent of electricity via renewable sources;
- 2030: The year in which electric utilities, including LADWP, are expected to supply a minimum of 50 percent of electricity via renewable sources.

3.3.2 GHG Emission Sources and Calculation Methodology

Construction

Construction of the project would result in one-time GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O from heavy-duty construction equipment, haul trucks, and worker vehicles. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and on-road emissions factors. The emissions are estimated using the CalEEMod tool, which incorporates the CARB off-road equipment emissions factor model (OFFROAD) and on-road vehicle emissions factor model (EMFAC). The output values used in this analysis are adjusted to be project-specific based on equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for

each construction year. The CalEEMod tool provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Since a construction contractor(s) has not yet been retained for the project, specific equipment specifications are not yet known. Therefore, recommended default equipment and vehicle horsepower ratings and load factors provided in CalEEMod are used in this assessment. This assessment also assumes equipment would operate for 8 hours during a workday.

Construction of the project would occur over a number of phases and include activities such as demolition, debris and soil hauling, building construction, architectural coating, and paving. Information regarding the activities that would occur during these phases is provided below:

- **Demolition:** This first phase is anticipated to begin as early as 2018 and last for just under one month (approximately three weeks). If construction commences at a later date, this assessment would be considered conservative as future year emission factors tend to decline in future years. Construction equipment would include an excavator, dozers concrete saw, tractors/loaders/backhoes, haul trucks, and other construction equipment.

- **Site Preparation:** This phase is anticipated to begin after the demolition phase and last for approximately one to two weeks. Construction equipment would include tractors/loaders/backhoes and rubber tired dozers.

- **Grading and Excavation:** This phase is anticipated to begin after the site preparation phase and last for approximately four months. Construction equipment would include a drill rig, excavators, dozer, loader, scraper, tractors/loaders/backhoes, haul trucks, and other equipment. Up to approximately 120,000 cubic yards of soil, based on conservative measurements, would be excavated and exported.

- **Building Construction:** This phase is anticipated to begin after grading and last for approximately 17 months. During this phase, the parking structure and residential and commercial buildings would be constructed. Construction equipment would include forklifts, crane, tractors/loaders/backhoes, generator, welders, concrete pump, concrete trucks, and other construction equipment.

- **Paving:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, paving materials would be poured during construction of the buildings and related features and the surfaces would be paved. Construction equipment would include concrete trucks, paving equipment, and other equipment.

- **Architectural Coating:** This activity is anticipated to last for approximately four months and occur during the building construction phase. During this activity, the interior and exterior coating would be applied to the residential and commercial buildings. Specific coating equipment would include an air compressor.

The emissions of GHGs associated with construction of the project were calculated for each year of construction activity. Detailed emissions calculations are provided in **Appendix B**. Results of the GHG emissions calculations are presented in **Table 9**, *Estimated Unmitigated Project Construction Greenhouse Gas Emissions*. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to them when assessing all of the long-term GHG emissions associated with a project.

TABLE 9
ESTIMATED UNMITIGATED PROJECT CONSTRUCTION GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions [a]
Construction Year 1	1,466
Construction Year 2	779

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in **Appendix B**.

SOURCE: ESA 2017.

Operational Energy – Electricity

Electricity-related emissions of GHGs associated with operation of the project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions are calculated using the general formula shown previously as **Equation 1**. For residential land uses, emission factors are specified in units of dwelling units (DU). For nonresidential land uses, emission factors are specified in units of 1,000 square feet. This assessment also includes electricity-related GHG emissions from the proposed enclosed parking structure, which would include elevators, lighting, and a ventilation system.

Electricity demand is based on data from the CEUS, which lists energy demand by building type.[22] However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2013 Title 24 Building Standards Code. Since the project would be required to meet the Title 24 standards in effect at the time of building permit application, this analysis incorporates an additional correction factor to account for the updated 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017. The additional Title 24 regulated energy correction factor applies a 5 percent increased energy efficiency for nonresidential land uses and a 28 percent increased efficiency for residential land uses compared to the 2013 Title 24 Building Standards Code.[23]

The project would be designed to incorporate Project Design Features (PDFs) that would reduce its energy demand with the goal of achieving or exceeding the requirements of the State of California Green Building Standards (CALGreen) Code, the City of Los Angeles Green Building Code, and the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Silver rating. The project would also include a minimum of 30

22 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017

23 The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, ,http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf). Accessed January 2017.

kilowatts of photovoltaic panels on the project site,[24] which would be estimated to provide approximately 47,478 kilowatt-hours of electricity per year, based on region-specific data from the United States Department of Energy, National Renewable Energy Laboratory (NREL).[25] Therefore, electricity provided by 30 kilowatts of on-site photovoltaic panels would provide approximately 47,478 kilowatt-hours of renewable electricity per year, which would offset approximately 1.72 percent of the project's estimated annual electricity demand of 2,754,321 kilowatt-hours per year. Thus, the project would reduce its electricity demand as compared to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the "mitigation measures" section of the model or applying the appropriate reductions after modeling (i.e., reducing the annual GHG emissions from electricity demand by approximately 1.72 percent from 30 kilowatt photovoltaic panels). Green building measures that would result in quantifiable reductions in GHG emissions would include, but are not limited to the following:

Green Building Measures: The project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. Green building measures would include, but are not limited to the following:

- The project would implement a construction waste management plan to recycle and/or salvage a minimum of 50 percent of nonhazardous construction debris.
- The project would be designed to optimize energy performance and reduce building energy cost by a minimum of 5 percent for new construction compared to the Title 24 Building Energy Efficiency Standards (2016).
- The project would be designed to optimize energy performance and reduce building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent.
- The project shall provide a minimum of 30 kilowatts of photovoltaic panels on the project site, unless additional kilowatts of photovoltaic panels become feasible due to additional area being added to the project site.
- The residential units within the project shall not include the use of natural gas-fueled fireplaces.
- The project would include double-paned windows to keep heat out during summer months and keep heat inside during winter months.
- The project would include lighting controls with occupancy sensors to take advantage of available natural light.

[24] The amount of solar photovoltaic panels (30 kilowatts) is estimated based on the available physical roof space taking into account space dedicated for rooftop amenities, decks/pool areas, and space required for rooftop equipment, such as heating, ventilation, and air conditioning units.

[25] U.S. Department of Energy, National Renewable Energy Laboratory, PVWatts Calculator. Available: http://pvwatts.nrel.gov/pvwatts.php. Accessed March 2017.

- The project would reduce outdoor potable water use by a minimum of 20 percent compared to baseline water consumption. Reductions would be achieved through drought-tolerant/California native plant species selection, irrigation system efficiency, alternative water supplies (e.g., stormwater retention for use in landscaping), and/or smart irrigation systems (e.g., weather-based controls).

- The project would reduce indoor potable water use by a minimum of 20 percent compared to baseline or standard water consumption by installing water fixtures that exceed applicable standards.

- The project would provide on-site recycling areas, consistent with City of Los Angeles strategies and ordinances, with the goal of achieving 70 percent waste diversion by 2020, and 90 percent by 2025.

- To encourage carpooling and the use of electric vehicles by project residents and visitors, the Applicant shall designate a minimum of eight (8) percent on on-site parking for carpool and/or alternative-fueled vehicles and shall pre-wire, or install conduit and panel capacity for, electric vehicle charging stations for a minimum of five (5) percent of on-site parking spaces.

The LADWP provides electric service to the project site. Currently, LADWP provides 20 percent of electricity via renewable sources.[26] LADWP is required to provide an increasing percentage from renewable sources in compliance with the Renewables Portfolio Standard with 33 percent by 2020, 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. During calendar year 2015, 37 percent of the energy delivered to LADWP customers was generated from two coal-fired generating stations: the Intermountain Power Project (IPP), located in Utah, and the Navajo Generating Station (NGS), located in Arizona. These stations provide base load generation to Los Angeles; however, they emit about twice as much CO_2 as energy generated from natural gas.[27] On July 1, 2016, LADWP sold its 477 MW share in NGS to Salt River Project, three and a half years before the operating agreement and land lease expires in December 2019.[28] The reduction in LADWP's CO_2 intensity from this sale is not reflected in the 2015 CO_2 intensity factor above. LADWP continues to focus on early coal replacement options as a means to lower LADWP's CO_2 emission levels and increase renewable sources in accordance with the Renewables Portfolio Standard.

Based on data obtained from CARB staff, "[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] CO_2/MWh may be used."[29] 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

26 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-1.
27 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-8.
28 Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) ES-8.
29 California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017. The emission factor of 595 pounds CO_2/MWh is from the California LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm, based on analysis with CA-GREET model. This document is provided in **Appendix C**.

rule impact assessments."[30] Therefore, consistent with the CARB staff recommendation, a CO_2 intensity factor of 595 pounds of CO_2 per MWh was used for electricity emissions for years 2020 through 2023. Future year CO_2 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 CH_4 and N_2O were obtained from CalEEMod.[31]

The estimated annual emissions from electrical demand from the project's land uses during the opening year are provided in **Table 10**, *Project Electrical Demand Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 10
PROJECT ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
2021-2023						
Apartment [e]	202.5	758.4	595	0.029	0.0062	205.5
Hotel	58.5	594.7	595	0.029	0.0062	161.2
Retail	3.5	45.3	595	0.029	0.0062	12.3
Restaurant	9.1	394.2	595	0.029	0.0062	106.8
Fitness Center	2.5	27.6	595	0.029	0.0062	7.5
Pool/Deck/Spa	4.8	14.7	595	0.029	0.0062	4.0
Other Open Space/Amenities	18.5	46.3	595	0.029	0.0062	12.6
Enclose Parking with Elevator	89.2	555.3	595	0.029	0.0062	150.5
Unenclosed Parking with Elevator	100.5	270.3	595	0.029	0.0062	73.3
Subtotal						**734**
2024-2026						
Apartment [e]	202.5	758.4	533	0.029	0.0062	184.2
Hotel	58.5	594.7	533	0.029	0.0062	144.5
Retail	3.5	45.3	533	0.029	0.0062	11.0
Restaurant	9.1	394.2	533	0.029	0.0062	95.8
Fitness Center	2.5	27.6	533	0.029	0.0062	6.7
Pool/Deck/Spa	4.8	14.7	533	0.029	0.0062	3.6
Other Open Space/Amenities	18.5	46.3	533	0.029	0.0062	11.3
Enclose Parking with Elevator	89.2	555.3	533	0.029	0.0062	134.9
Unenclosed Parking	100.5	270.3	533	0.029	0.0062	65.7

30 California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017.
31 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	
with Elevator						
Subtotal						**658**
2027-2029						
Apartment [e]	202.5	758.4	488	0.029	0.0062	168.7
Hotel	58.5	594.7	488	0.029	0.0062	132.3
Retail	3.5	45.3	488	0.029	0.0062	10.1
Restaurant	9.1	394.2	488	0.029	0.0062	87.7
Fitness Center	2.5	27.6	488	0.029	0.0062	6.1
Pool/Deck/Spa	4.8	14.7	488	0.029	0.0062	3.3
Other Open Space/Amenities	18.5	46.3	488	0.029	0.0062	10.3
Enclose Parking with Elevator	89.2	555.3	488	0.029	0.0062	123.6
Unenclosed Parking with Elevator	100.5	270.3	488	0.029	0.0062	60.1
Subtotal						**602**
2030-2050						
Apartment [e]	202.5	758.4	444	0.029	0.0062	153.6
Hotel	58.5	594.7	444	0.029	0.0062	120.4
Retail	3.5	45.3	444	0.029	0.0062	9.2
Restaurant	9.1	394.2	444	0.029	0.0062	79.8
Fitness Center	2.5	27.6	444	0.029	0.0062	5.6
Pool/Deck/Spa	4.8	14.7	444	0.029	0.0062	3.0
Other Open Space/Amenities	18.5	46.3	444	0.029	0.0062	9.4
Enclose Parking with Elevator	89.2	555.3	444	0.029	0.0062	112.5
Unenclosed Parking with Elevator	100.5	270.3	444	0.029	0.0062	54.7
Subtotal						**548**

NOTES:

[a] California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, http://www.caleemod.com/. Accessed January 2017. The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf Accessed January 2017. Demand factor accounts for a 5 percent reduction in Title 24 energy demand per PDF-GHG-1.

[b] California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

[e] For emissions modeling purposes, the electricity and associated GHG reductions from the 30 kilowatt photovoltaic panels (approximately 47,478 kilowatt-hours per year) were applied to the Apartment land use.

SOURCE: ESA 2017.

Land Use	Units (1000 sqft)	Annual Electrical Demand Factor, D_E (MWh/year) [a]	Emission Factor, EF_E (pounds/MWh)			Annual GHG Emissions ($MTCO_2e$/year) [d]
			CO_2 [b]	CH_4 [c]	N_2O [c]	

Operational Energy – Natural Gas

Natural gas-related emissions of GHGs associated with operation of the project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the natural gas demand factors for the land uses, the GHG emission factors for the natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions are calculated using the general formula shown previously as **Equation 2**. For residential land uses, emission factors are specified in units of DU. For nonresidential land uses, emission factors are specified in units of 1,000 square feet.

Natural gas demand is based on data from the CEUS, which lists energy demand by building type.[32] However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2013Title 24 Building Standards Code. The 2013 Title 24 Building Standards Code electricity demand factors are obtained from CalEEMod, which already has the correction factors applied. Since the project would also be required to meet the Title 24 standards in effect at the time of building permit application, this analysis incorporates an additional correction factor to account for the amended 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017. The additional Title 24 regulated energy correction factor applies a 5 percent increased energy efficiency for nonresidential land uses and a 28 percent increased efficiency for residential land usess compared to the 2013 Title 24 Building Standards Code.[33] The project would be designed to incorporate PDFs that would reduce its energy demand with the goal of achieving or exceeding the requirements of the CALGreen Code, the City of Los Angeles Green Building Code, and the USGBC LEED Silver rating. Thus, the project would reduce its natural gas demand as comparoed to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the "mitigation measures" section of the model. A summary of the energy-efficiency PDFs is provided above in PDF-GHG-1.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the project were obtained from CalEEMod, which provides

32 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx. Accessed January 2017.

33 The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, ,http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed January 2017.

statewide emission factors.34 The emissions of GHGs due to natural gas demand would be relatively steady for the years assessed.

The estimated annual emissions from natural gas combustion from the project are provided in **Table 11**, *Project Natural Gas Combustion Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 11
PROJECT NATURAL GAS COMBUSTION GREENHOUSE GAS EMISSIONS

Land Use	Units (1000 sqft)	Annual Natural Gas Demand Factor (MMBtu/unit/year) [a]	Emission Factor (pounds/MMBtu)			Annual GHG Emissions ($MTCO_2e$/year) [c]
			CO_2 [b]	CH_4 [b]	N_2O [b]	
2021-2050						
Apartment	202.5	1923.6	117.65	0.0023	0.0022	103.3
Hotel	58.5	1777.8	117.65	0.0023	0.0022	95.4
Retail	3.5	5.3	117.65	0.0023	0.0022	0.3
Restaurant	9.1	2052.2	117.65	0.0023	0.0022	110.2
Fitness Center	2.5	42.5	117.65	0.0023	0.0022	2.3
Pool/Deck/Spa	4.8	59.9	117.65	0.0023	0.0022	3.2
Other Open Space/Amenities	18.5	0	117.65	0.0023	0.0022	0
Enclose Parking with Elevator	89.2	0	117.65	0.0023	0.0022	0
Unenclosed Parking with Elevator	100.5	0	117.65	0.0023	0.0022	0
Subtotal						**315**

NOTES:

[a] California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, http://www.caleemod.com/. Accessed January 2017. The current version of CalEEMod (version 2016.3.1) includes electricity and natural gas correction factors for the 2013 version of the Title 24 building standards. According to the CEC, the 2016 version of the Title 24 building standards use 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2013 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf Accessed January 2017. Demand factor accounts for a 5 percent reduction in Title 24 energy demand per PDF-GHG-1.

[b] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[c] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Mobile

Mobile source emission calculations associated with the project are calculated using the VMT from the traffic analysis prepared for the project.[35] The estimated VMT in the traffic analysis is

34 California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

based on average trip lengths for each land use were determined using CalEEMod. The trip type describes the purpose of the trip generated at each land use, such as residential trips and commercial trips. Residential trips include home-work (H-W), home-shop (H-S), and home-other (H-O). Commercial trips include commercial-customer (C-C), commercial-work (C-W), and commercial-nonwork (C-NW). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type.

The analysis is also based on the EMFAC2014 model. Emissions of GHGs associated with mobile sources from operation of the project are based on the average daily VMT and GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. The types of vehicles that would visit the site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the project was conducted using the vehicle fleet mix for the South Coast Air Basin as provided in EMFAC2014.

The project is considered an "infill" project, as it is replacing existing residential uses 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 provided by the nearby Metro Red Line, which provides convenient access to locations within North Hollywood, Universal City, Hollywood and Downtown Los Angeles and direct connections to the Metro Gold, Purple, and Expo lines that provide transit service to a multitude of locations through the Los Angeles region. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood). New housing and job growth, as a result of the completed project, is focused in a high-quality transit area (HQTA), which the Southern California Association of Governments (SCAG) defines as an area within a half mile of a well-serviced transit stop. These land use characteristics are analyzed below to demonstrate that the project would result in reduced vehicle trips, VMT, and associated transportation-related GHG emissions, as well as air pollutant emissions, compared to the statewide and South Coast Air Basin average.

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance for mitigating or reducing emissions from land use development projects. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for recommended reduction measures.[36] The CAPCOA guidance document was utilized in this analysis for quantifying reductions due to land use characteristics and Project Design Features in CalEEMod. 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 compared to the statewide and South Coast Air Basin average. They would, therefore, result in a corresponding reduction in VMT and associated GHG and air pollutant emissions.

[35] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017.

[36] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010).

- **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 measure LUT-1.[37] 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/compact infill location and is mixed-use; therefore, this measure applies to the project. The project would increase the project site density to approximately 181 dwelling units per acre.

- **Location Efficiency:** Location efficiency describes the location of the 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. This measure corresponds to CAPCOA guidance measure LUT-2.[38] 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the geographic location of the project within the region. The project site represents an urban/compact infill location within the Hollywood community of the City 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 South Coast Air Basin average and would result in corresponding reductions in transportation-related emissions.

- **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 could be accommodated by alternative modes of transportation, such as public transit, bicycles, and walking. This measure corresponds to CAPCOA guidance measure LUT-3.[39] According to CAPCOA, the reduction in VMT from this measure applies to urban and suburban settings (also potentially for rural master-planned communities) for mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the percentage of each land use type in the project. The project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The project would include on-site 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

[37] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155-158.
[38] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 159-161.
[39] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162-166.

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.

- **Increased Destination Accessibility:** This characteristic corresponds to CAPCOA guidance measure LUT-4.[40] 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure 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, studio/production, office, entertainment, movie theater, and residential uses. The project site is also located near other job centers in the region, which include Downtown Los Angeles (easily accessible via the Metro Red Line station located within a quarter mile of the site), Beverly Hills, Century City, Westwood, and the Hollywood area itself. The access to multiple destinations in close proximity to the project site would reduce vehicle trips and VMT compared to the statewide and South Coast Air Basin average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.

- **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 measure corresponds to CAPCOA guidance measure LUT -5.[41] According to CAPCOA, the reduction in VMT from this measure 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/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include the distance to transit stations near the project. The project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood) and the Metro Red Line, which provides convenient access to North Hollywood, Universal City, Hollywood, and Downtown Los Angeles. The project would provide access to on-site uses from existing pedestrian pathways. The project would also provide parking for approximately 402 bicycles on-site to encourage utilization of alternative modes of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the statewide and South Coast Air Basin average, encourage 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 measure corresponds to CAPCOA

[40] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 167-170.

[41] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171-175.

guidance measure SDT-1.[42] According to CAPCOA, the reduction in VMT from this measure applies to urban, suburban, and rural settings for residential, retail, office, industrial, and mixed-use projects. The project is located in an urban/compact infill location and is mixed-use; therefore, this measure applies to the project. According to the CAPCOA guidance, factors that contribute to VMT reductions under this measure include pedestrian access connectivity within the project and to/from off-site destinations. The project would improve the street-level pedestrian environment and connectivity to the surrounding Hollywood area, with pedestrian access to commercial/restaurant uses provided from various at-grade sidewalks and steps equipped with café tables, parkway planters, and bike parking along Argyle Avenue, Yucca Street, and Vista Del Mar Avenue. 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.

The VMT reductions from the project's land use characteristics 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.[43] Data collected by the City in support of its Health Atlas for the City of Los Angeles demonstrates that the project would be located in an area that would substantially reduce mobile source VMT and GHG emissions relative to the Citywide and statewide averages. 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 organized by Community Plan Area. The project is located in the Hollywood Community Plan Area. A summary and analysis of the Health Atlas findings relative to the Hollywood Community Plan Area are provided below.

- **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."[44] The Health Atlas evaluates land use mix based on a Dissimilarity Index for each census tract and each Community Plan Area. The Dissimilarity Index quantifies the area of six different land uses: single family residential, multifamily residential, retail, entertainment, office, and institutional or community serving. Values were normalized on a scale of 0 to 1, with 1 representing an even distribution of the six uses within an area. The Hollywood Community Plan Area scored the highest out of the 35 Community Plan Areas indicating that the area has the highest number of different types of amenities available in the Community Plan Area. The data indicates that the Hollywood Community Plan Area has a high potential for walkability and offers a high number of destinations available for non-motorized trips. 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

42 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 186-189.

43 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013), http://planning.lacity.org/cwd/framwk/healthwellness/healthwellness.htm. Accessed January 2017.

44 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 86-87.

accommodated by non-auto modes of transport."[45] The high scores for walkability and number of destinations available for non-motorized trips within the Hollywood Community Plan Area supports the expectation that projects located in the area would achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide average. It also follows that projects located in the area would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the statewide average since the City of Los Angeles is more urbanized and has a higher mix and diversity of land uses than the state as a whole.

- **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."[46] In turn, "[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."[47] The Health Atlas evaluates employment density as the number of jobs per square mile. The Hollywood Community Plan Area has the 9th highest employment density of the 35 Community Plan Areas in the City with approximately 4,200 jobs per square mile. The Citywide average employee density is approximately 1,185 jobs per square mile.[48] The data indicates that the Hollywood 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. 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."[49] 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."[50] The high employment density of the Hollywood 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.

- **Walkability:** The Health Atlas 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 Hollywood Community Plan Area has the 9th highest Walkability Index of the 35 Community Plan Areas in the City.[51] 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, reduced VMT and associated GHG emissions. The high Walkability Index of the Hollywood Community Plan Area supports the expectation that projects located in the area would have a highly walkable environment.

45 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162.
46 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 90.
47 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 90.
48 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 102.
49 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155.
50 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 155.
51 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 86.

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.

- **Workers Commuting by Walking, Biking, and Public Transportation:** The Health Atlas indicates that the Hollywood Community Plan Area has a high percentage of workers that commute to work by walking, biking, and public transportation. The Hollywood Community Plan Area has the 9th highest percentage of workers that commute to work by walking, biking, and public transportation at about 22 percent for the area as a whole based on 2010 data.[52] The statewide percentage of workers that commute to work by walking, biking, and public transportation is approximately 9 percent based on census data for the 2010 to 2014 period.[53] As discussed previously, the Hollywood Community Plan Area is a high walkable area and the area is also well served by frequent and comprehensive transit including the Metro Red Line, which provides convenient access to Downtown Los Angeles, and multiple bus lines. Thus, the data indicates that the Hollywood Community Plan Area substantially exceeds the statewide average for the percentage of workers that commute to work by walking, biking, and public transportation. The Health Atlas findings are further substantiated by the CAPCOA guidance measures LUT-1, LUT-3, and LUT-9, as discussed previously, and also by LUT-5 (Increase Transit Accessibility), which indicates that "high density near transit will facilitate the use of transit by people."[54] The high level of workers that commute to work by walking, biking, and public transportation in the Hollywood Community Plan Area supports the expectation that projects located in the area would be accessible to 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 average.

The above data from the City's Health Atlas supports the VMT reduction findings in this analysis. The project's specific location in close proximity to high-quality transit, including the Metro Red Line 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 finding in this analysis that the project would achieve a reduction in VMT greater than the Hollywood Community Plan Area average and better than the City and statewide average.

Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing project site. The national policy for fuel efficiency and emissions standards for the United States auto industry requires that new passenger cars and light-duty trucks achieve an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO_2 per mile by model year 2016 (Phase I standards), based on USEPA calculation methods. In August 2012, more stringent phased-in standards were adopted for new model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, new vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO_2 per mile (Phase II standards). By 2025, new vehicles are

52 City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 112.
53 U.S. 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 January 2017.
54 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 171.

required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile (Phase II standards). All vehicle types would visit the project site. Therefore, this assessment uses the fleet average calendar year emissions factors from EMFAC2014 to estimate mobile source GHG emissions.

The estimated annual emissions from mobile sources from the project are provided in **Table 12**, *Project Mobile Source Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 12
PROJECT MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Fleet Mix Year (All Vehicle Classes)	Extimated Annual VMT[a]	CO_2 Emission Factor (grams/mile)[b]	Annual GHG Emissions ($MTCO_2e$/year)
2021-2050			
2021	8,950,895	417.9	3,741
2022	8,950,895	406.2	3,636
2023	8,950,895	392.7	3,515
2024	8,950,895	382.7	3,426
2025	8,950,895	371.0	3,321
2026	8,950,895	361.2	3,233
2027	8,950,895	352.5	3,155
2028	8,950,895	344.9	3,087
2029	8,950,895	338.2	3,027
2030	8,950,895	332.4	2,976
2031	8,950,895	327.7	2,933
2032	8,950,895	323.3	2,893
2033	8,950,895	319.4	2,859
2034	8,950,895	316.2	2,830
2035	8,950,895	313.6	2,807
2036	8,950,895	311.6	2,789
2037	8,950,895	310.0	2,775
2038	8,950,895	308.8	2,764
2039	8,950,895	307.9	2,756
2040	8,950,895	307.2	2,750
2041	8,950,895	306.8	2,746
2042	8,950,895	306.5	2,744
2043	8,950,895	306.5	2,743
2044	8,950,895	306.5	2,744
2045	8,950,895	306.6	2,745
2046	8,950,895	306.9	2,747
2047	8,950,895	307.2	2,750

Fleet Mix Year (All Vehicle Classes)	Extimated Annual VMT[a]	CO_2 Emission Factor (grams/mile)[b]	Annual GHG Emissions ($MTCO_2e$/year)
2048	8,950,895	307.6	2,753
2049	8,950,895	308.0	2,757
2050	8,950,895	308.6	2,763

NOTES:

[a] Gibson Transportation Consulting Inc., AB 900 Traffic Assessment for the 6220 West Yucca Project Hollywood, California. January 2017. Based on the estimated daily VMT multiplied by 365 days per year.

[b] EMFAC2014 Emission Factors.

SOURCE: ESA 2017.

Operational Waste

The project would generate MSW from day-to-day operational activities, which generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal under the project are calculated using CalEEMod. The emissions are based on the size of the commercial, retail, restaurant, and residential land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ are generally calculated in CalEEMod using the general formula shown previously as **Equation 3**.

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. Annual waste disposal rates used in CalEEMod are based on waste generation data for applicable residential and nonresidential land uses from CalRecycle. The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of 76 percent, according to the most recent data available.[55] The GHG emission factors, particularly for CH_4, 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), which are statewide averages, are used in this assessment.

The estimated annual emissions from solid waste disposal from the project are provided in **Table 13**, *Project Solid Waste Disposal Greenhouse Gas Emissions*. The emissions of GHGs due to

[55] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

waste generation would be relatively steady for the years assessed. Detailed emissions calculations are provided in **Appendix B**.

TABLE 13
PROJECT SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use [a]	Waste Diversion [b]	Waste Disposal Rate After Diversion (tons/year)	Landfill gas (no capture)	Landfill Gas (capture with flaring)	Annual GHG Emissions ($MTCO_2e$/year) [c]
2021-2050					
Apartment	76%	112.5	6%	94%	56.6
Hotel	76%	27.3	6%	94%	13.7
Retail/Restaurant	76%	2.7	6%	94%	1.4
Subtotal					**72**

NOTES:

[a] Waste generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 2017. Waste generation is associated with the project's residential, hotel, and retail/restaurant uses.

[b] City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

[c] Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the project would require energy to supply, distribute and treat. Emissions of GHGs would result from the combustion of fossil fuels to produce electricity as well as the wastewater treatment process itself, which results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O.

The emissions of GHGs associated with water demand and wastewater generation under the project are calculated using CalEEMod. The emissions are based on the size of the commercial, retail, restaurant, and residential land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod using the general formula shown previously as **Equation 4**.

CalEEMod calculates water demand based on annual rates in the Pacific Institute *Waste Not Want Not* report.[56] CalEEMod provides options to account for the use of water saving features such as

[56] Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. Waste Not, Want Not: The Potential for Urban Water Conservation in California. Published by the Pacific Institute for Studies in Development, Environment, and Security. Full report available online at: http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf. Appendices available online at: http://www.pacinst.org/reports/urban_usage/appendices.htm.

the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets). The project would incorporate PDFs to reduce indoor and outdoor water usage, as summarized previous in PDF-GHG-1. Implementation of these PDFs would reduce indoor water usage by approximately 35 percent compared to typical usage values for developments meeting the minimum requirements. These water reduction factors have been accounted for in CalEEMod.

The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.[57] The same electricity GHG emissions factors discussed under the **Operational Energy – Electricity** subheading are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the *California Emissions Estimator Model User's Guide, Appendix A*.[58] As stated in the *User's Guide*, the GHGs emitted from each type of wastewater treatment are based on the CARB's *Local Government Operations Protocol* (LGOP),[59] which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.[60] The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

The estimated annual emissions from water and wastewater from the project are provided in **Table 14**, *Project Water and Wastewater Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 14
PROJECT WATER AND WASTEWATER GREENHOUSE GAS EMISSIONS

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
2021-2023							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	44.5
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	30.0
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	24.5

57 California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).
58 California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, (2016).
59 California Air Resources Board, Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008).
60 United States Environmental Protection Agency, Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008).

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.1
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	4.0
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.9
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	2.1
Subtotal							**108**
2024-2026							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	41.1
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	27.7
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	22.6
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.0
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.7
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.7
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.9
Subtotal							**100**
2027-2029							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	38.6
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	26
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	21.2
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	1.0
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.5
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0

Land Use	Indoor Water Demand (gal/year)	Outdoor Water Demand (gal/year) [a]	Suppy Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions ($MTCO_2e$/year) [d]
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.5
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.7
Subtotal							**94**
2030-2050							
Apartment	8,111,760	1,622,352	9,727	111	1,272	1,911	36.1
Hotel	5,566,240	1,093,250	9,727	111	1,272	1,911	24.3
Retail	25,185	5,037	9,727	111	1,272	1,911	0.1
Restaurant	4,458,840	891,768	9,727	111	1,272	1,911	19.8
Fitness Center	193,421	38,684	9,727	111	1,272	1,911	0.9
Pool/Deck/ Spa	73,073	146,146	9,727	111	1,272	1,911	3.3
Other Open Space/ Amenities	0	0	9,727	111	1,272	1,911	0
Enclose Parking with Elevator	0	625,268	9,727	111	1,272	1,911	1.4
Unenclosed Parking with Elevator	0	704,185	9,727	111	1,272	1,911	1.6
Subtotal							**88**

NOTES:

[a] California Air Resources Board, CalEEModOutput.

[c] California Air Pollution Control Officers Association, California Emissions Estimator Model, http://www.caleemod.com/. Accessed January 2017.

[d] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B.**

SOURCE: ESA 2017.

Operational Area and Stationary

Area sources of GHG emissions resulting from operation of the project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO_2 and smaller amounts of CH_4 and N_2O. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers. Residential hearths would not be installed in the project's residential uses.

The emissions of GHGs associated with operational area sources under the project are calculated using CalEEMod. The emissions for landscaping equipment are based on the size of the

commercial, retail, restaurant, and residential land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of $MTCO_2e$ are generally calculated in CalEEMod using the general formula shown previously as **Equation 5**. CalEEMod 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)*.[61] CalEEMod estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

Stationary sources would include on-site emergency generator capacity rated at approximately 250 kilowatts (335 horsepower), which would provide emergency power primarily for lighting and other emergency building systems. Emissions of GHGs would be generated during maintenance and testing operations and emissions were estimated separately outside of the CalEEMod software. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines). Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

The estimated annual emissions from area and stationary sources under the project are provided in **Table 15**, *Project Area and Stationary Source Greenhouse Gas Emissions*. Detailed emissions calculations are provided in **Appendix B**.

TABLE 15
PROJECT AREA AND STATIONARY SOURCE GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions [a]
Landscaping Equipment	54
Emergency Generator	7
Total GHG Emissions	61

NOTES:
[a] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in **Appendix B**.

SOURCE: ESA 2017.

Summary of Project GHG Emissions

A summary of the GHG emissions under the project is provided in **Table 16**, *Summary of Annual GHG Emissions*.

TABLE 16
SUMMARY OF ANNUAL GHG EMISSIONS

Year	Annual GHG Emissions ($MTCO_2e$/year)							
	Construc-tion	Electricity	Natural Gas	Mobile	Waste	Water and Waste Water	Area and Stationary	Total [a]
Const yr 1	1,466	–	–	–	–	–	–	1,466
Const Yr 2	779	–	–	–	–	–	–	779
2021	–	734	315	3,741	72	108	61	5,031
2022	–	734	315	3,636	72	108	61	4,926
2023	–	734	315	3,515	72	108	61	4,805
2024	–	658	315	3,426	72	100	61	4,632
2025	–	658	315	3,321	72	100	61	4,527
2026	–	658	315	3,233	72	100	61	4,439
2027	–	602	315	3,155	72	94	61	4,299
2028	–	602	315	3,087	72	94	61	4,231
2029	–	602	315	3,027	72	94	61	4,171
2030	–	548	315	2,976	72	88	61	4,060
2031	–	548	315	2,933	72	88	61	4,017
2032	–	548	315	2,893	72	88	61	3,977
2033	–	548	315	2,859	72	88	61	3,943
2034	–	548	315	2,830	72	88	61	3,914
2035	–	548	315	2,807	72	88	61	3,891
2036	–	548	315	2,789	72	88	61	3,873
2037	–	548	315	2,775	72	88	61	3,859
2038	–	548	315	2,764	72	88	61	3,848
2039	–	548	315	2,756	72	88	61	3,840
2040	–	548	315	2,750	72	88	61	3,834
2041	–	548	315	2,746	72	88	61	3,830
2042	–	548	315	2,744	72	88	61	3,828
2043	–	548	315	2,743	72	88	61	3,827
2044	–	548	315	2,744	72	88	61	3,828
2045	–	548	315	2,745	72	88	61	3,829
2046	–	548	315	2,747	72	88	61	3,831
2047	–	548	315	2,750	72	88	61	3,834
2048	–	548	315	2,753	72	88	61	3,837
2049	–	548	315	2,757	72	88	61	3,841
2050	–	548	315	2,763	72	88	61	3,847

NOTES:

[a] Totals may not add up exactly due to rounding in the modeling calculations.

SOURCE: ESA 2017.

Project GHG Emissions Offsets

Annual emissions of GHGs from the project will incorporate GHG emission offsets as necessary to achieve a net zero increase in site GHG emissions, relative to the baseline annual GHG emissions, for the estimated project lifetime. The project Applicant proposes to meet the requirement set forth in California Public Resources Code Section 21183 (c), which requires that the project demonstrate that it will not result in net additional emissions of GHG, through the acquisition of voluntary carbon credits sufficient to offset all projected additional emissions. the Applicant or its successor shall enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (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 achieve a net zero increase in site GHG emissions. Consistent with SCAQMD's definition of the "life of the project" for CEQA GHG purposes, provided in SCAQMD's Governing Board Agenda Item 31, December 5, 2008, the project would be required to offset emissions over a 30-year lifetime. The SCAQMD recommends that offsets should have a 30-year project life, should be real, quantifiable, verifiable, and surplus and will be considered in the following prioritized manner: (1) project design feature/on-site reduction measures; (2) off-site within the neighborhood; (3) off-site within the SCAQMD jurisdiction; (4) off-site within the State; (5) off-site out-of-State. The project would obtain offsets following this prioritization. The necessary offsets are summarized below in **Section 4.0**, *Comparison of Project to Baseline Condition*. Offsets are estimated for a project useful lifetime of 30 years, which is recommended as a presumed project lifetime per SCAQMD guidance.[62]

62 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/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2. Accessed January 2017.

4.0
Comparison of Project to Baseline Condition

Table 17, *Evaluation of Net GHG Emissions for the Project*, provides a summary of the determination of net additional GHG emissions comparing the existing site GHG emissions and the project GHG emissions including the project's total construction-related GHG emissions. Based on these GHG emissions estimates, the project would not result in net additional contemporaneous GHG emissions compared to the baseline annual operational emissions at any time.

The project shall commit to obtaining GHG offsets to achieve no net increase in GHG emissions. As such, the project would not result in net contemporaneous GHG emissions compared to the Baseline Condition, taking into account GHG offsets. Therefore, this analysis demonstrates that the project meets the GHG emissions requirements of the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.) and would result in no net GHG emissions.

TABLE 17
EVALUATION OF NET GHG EMISSIONS FOR THE PROJECT

Year	Baseline Annual Operations	Project Total	Estimated Offsets [a]	Net Change from Baseline
2021-2050				
Const yr 1	0 ~~626~~	1,466	1,466 ~~840~~	0
Const Yr 2	0 ~~626~~	779	779 ~~153~~	0
2021	626	5,031	4,405	0
2022	626	4,926	4,300	0
2023	626	4,805	4,179	0
2024	626	4,632	4,006	0
2025	626	4,527	3,901	0
2026	626	4,439	3,813	0
2027	626	4,299	3,673	0
2028	626	4,231	3,605	0
2029	626	4,171	3,545	0
2030	626	4,060	3,434	0
2031	626	4,017	3,391	0
2032	626	3,977	3,351	0
2033	626	3,943	3,317	0
2034	626	3,914	3,288	0
2035	626	3,891	3,265	0
2036	626	3,873	3,247	0
2037	626	3,859	3,233	0
2038	626	3,848	3,222	0
2039	626	3,840	3,214	0
2040	626	3,834	3,208	0
2041	626	3,830	3,204	0
2042	626	3,828	3,202	0
2043	626	3,827	3,201	0
2044	626	3,828	3,202	0
2045	626	3,829	3,203	0
2046	626	3,831	3,205	0
2047	626	3,834	3,208	0
2048	626	3,837	3,211	0
2049	626	3,841	3,215	0
2050	626	3,847	3,221	0

NOTES:

[a] The quantity of GHG emissions offsets may be re-evaluated periodically to account for future reductions from the promulgation of state regulations, such as post-2025 model year vehicle emissions standards and post-2030 Renewables Portfolio Standard and other regulations that would reduce project-related operational GHG emissions but cannot be quantified at this time.

SOURCE: ESA 2017.

Appendix A
Baseline Operational Emissions

ESA

Existing Uses Electricity Demand Rates

Land Use	Climate Zone	T24 Standard	T24 Electricity (kWh/DU/year)	NT24 Electricity (kWh/DU/year)	Lighting Electricity (kWh/DU/year)	Total Electricity (kWh/DU/year)	Per Unit Annual Electricity Usage (MWh/DU/year)
Single-Family	11	2005	467.55	5,089.81	1,608.84	7,166.20	7.17
Single-Family	**11**	**2001**	**582.98**	**5,089.81**	**1,608.84**	**7,281.63**	**7.28**
Apartment Low-Rise	11	2005	170.99	2,630.88	810.36	3,612.23	3.61
Apartment Low-Rise	**11**	**2001**	**225.88**	**2,630.88**	**810.36**	**3,667.12**	**3.67**

Source: California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2016.3.1), Appendix E Section 5, September 2016, http://caleemod.com/. Accessed January 2017.
California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2013.2), Appendix E Section 5, July 2013, http://caleemod.com/. Accessed January 2017.
Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Existing Uses Electricity Greenhouse Gas Emissions

Refer to CalEEMod output files.

Existing Uses Natural Gas Demand Rates

Land Use	Climate Zone	T24 Standard	T24 Natural Gas (kBtu/DU or sf/year)	NT24 Natural Gas (kBtu/DU or sf/year)	Total Natural Gas (kWh/DU/year)	Per Unit Annual Natural Gas Usage (MWh/DU/year)
Single-Family	11	2005	28,628.82	5,819.00	34,447.82	34.45
Single-Family	**11**	**2001**	**30,684.69**	**5,819.00**	**36,503.69**	**36.50**
Apartment Low-Rise	11	2005	11,673.00	2,578.64	14,251.64	14.25
Apartment Low-Rise	**11**	**2001**	**13,846.98**	**2,578.64**	**16,425.62**	**16.43**

Source: California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2016.3.1), Appendix E Section 5, September 2016, http://caleemod.com/. Accessed January 2017.
California Air Resources Board, CalEEMod User's Guide (CalEEMod v. 2013.2), Appendix E Section 5, July 2013, http://caleemod.com/. Accessed January 2017.
Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Existing Uses Natural Gas Greenhouse Gas Emissions

Refer to CalEEMod output files.

Existing Uses Solid Waste Disposal Rates

Land Use	Project Units	Solid Waste Factor [a] (lbs/unit/day)	Solid Waste Before Diversion (tons/year)	Diversion Rate [b] (%)	Solid Waste After Diversion
Residential	44 DU	12.23	98.2	76%	23.6
Total Project					**23.6**

Notes:

a. Generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm. Accessed October 2015.

b. City of Los Angeles, Zero Waste Progress Report, (March 2013) 3. According to the Report, the City achieved a landfill diversion rate of approximately 76% by year 2012.

Source: ESA 2017.

Existing Uses Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

Existing Uses Water Demand Rates

Land Use	Units (DU, Rooms, or 1000 sqft)	Wastewater Generation [a] (gal/unit/day)	Water Demand [b] (gal/day)	Indoor Water Demand Rate (gal/year)	Outdoor Water Demand Rate (gal/year)	Indoor Water Reduction (%)	Reduced Indoor Water Demand Rate (gal/year)	Outdoor Water Reduction (%)	Reduced Outdoor Water Demand Rate (gal/year)
Multi-Family Residential	43		6,402	1,947,275	389,455	-	1,947,275	-	389,455
Studio	*1*	*75*	*90*						
One Bedroom	*26*	*110*	*3,432*						
Two Bedroom	*16*	*150*	*2,880*						
Three Bedroom	-	*190*	-						
Single-Family Residential	1	185	222	67,525	13,505	-	67,525	-	13,505
Parking/Asphalt/Hardscape	28	20	672	-	245,280	-	-	-	245,280
Total Water Demand				**2,014,800**	**648,240**		**2,014,800**		**648,240**

Notes:

a. Wastewater generation factors obtained from City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR), dated January 2017 and based on Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories, dated April 6, 2012.

b. Water demand rates are calculated based on the wastewater generation rates and increasing the factor by 20% to account for absorption, evaporation, consumption, irrigation, and other losses.

Source: ESA 2017.

Existing Uses Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 West Yucca Street Mixed Use Project - Existing Site Operations

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	28.00	1000sqft	0.64	28,000.00	0
Apartments Low Rise	43.00	Dwelling Unit	0.80	18,952.00	87
Single Family Housing	1.00	Dwelling Unit	0.16	1,367.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2015
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1132	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Los Angeles Department of Water and Power, 2016 Draft Power Integrated Resource Plan, (2016) C-13.

Land Use - Multi-Family (43 DU); Single-Family (1 DU). Pop.=2.03/DU per census data for Hollywood Community Plan Area.

Vehicle Trips -

Woodstoves - Assumes no woodstoves. 1 Fireplace at duplex multi-family unit. No fireplaces at single-family or apartment units.

Energy Use - Title 24 (2001): California Air Resources Board, CalEEMod User's Guide, Appendix E, Section 5. Factors for the Title 24 (2001) standard are extrapolated based on the technical source documentation.

Water And Wastewater - Refer to "Existing Uses Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Existing Uses Solid Waste Disposal Rates" worksheet provided in this Appendix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3,418.36	2,630.88
tblEnergyUse	NT24E	6,680.41	5,089.81
tblEnergyUse	NT24NG	4,831.00	2,578.64
tblEnergyUse	NT24NG	4,831.00	5,819.00
tblEnergyUse	T24E	159.21	225.88
tblEnergyUse	T24E	238.85	582.98
tblEnergyUse	T24NG	13,398.37	13,846.98
tblEnergyUse	T24NG	28,690.19	30,684.69
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	36.55	0.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	4.30	42.00
tblFireplaces	NumberNoFireplace	0.10	1.00
tblFireplaces	NumberWood	2.15	1.00
tblFireplaces	NumberWood	0.05	0.00
tblLandUse	BuildingSpaceSquareFeet	43,000.00	18,952.00
tblLandUse	BuildingSpaceSquareFeet	1,800.00	1,367.00
tblLandUse	LandUseSquareFeet	43,000.00	18,952.00
tblLandUse	LandUseSquareFeet	1,800.00	1,367.00
tblLandUse	LotAcreage	2.69	0.80
tblLandUse	LotAcreage	0.32	0.16
tblLandUse	Population	123.00	87.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	1132
tblProjectCharacteristics	OperationalYear	2018	2015
tblSolidWaste	SolidWasteGenerationRate	19.78	23.03
tblSolidWaste	SolidWasteGenerationRate	1.23	0.54
tblWater	IndoorWaterUseRate	2,801,623.10	1,947,275.00

tblWater	IndoorWaterUseRate	65,154.03	67,525.00
tblWater	OutdoorWaterUseRate	1,766,240.65	389,455.00
tblWater	OutdoorWaterUseRate	0.00	245,280.00
tblWater	OutdoorWaterUseRate	41,075.36	13,505.00
tblWoodstoves	NumberCatalytic	2.15	0.00
tblWoodstoves	NumberCatalytic	0.05	0.00
tblWoodstoves	NumberNoncatalytic	2.15	0.00
tblWoodstoves	NumberNoncatalytic	0.05	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Energy	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	136.9962	136.9962	3.2500e-003	1.2400e-003	137.4479
Waste						0.0000	0.0000		0.0000	0.0000	4.7845	0.0000	4.7845	0.2828	0.0000	11.8534
Water						0.0000	0.0000		0.0000	0.0000	0.6392	17.1686	17.8078	0.0661	1.6400e-003	19.9492

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Energy	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	136.9962	136.9962	3.2500e-003	1.2400e-003	137.4479
Waste						0.0000	0.0000		0.0000	0.0000	4.7845	0.0000	4.7845	0.2828	0.0000	11.8534
Water						0.0000	0.0000		0.0000	0.0000	0.6392	17.1686	17.8078	0.0661	1.6400e-003	19.9492
Total	**0.3282**	**0.8376**	**2.8811**	**5.6600e-003**	**0.3807**	**0.0233**	**0.4040**	**0.1021**	**0.0228**	**0.1249**	**6.2096**	**641.8393**	**648.0489**	**0.3858**	**2.9500e-003**	**658.5738**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	97.3573	97.3573	2.4900e-003	5.2000e-004	97.5734
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	97.3573	97.3573	2.4900e-003	5.2000e-004	97.5734
NaturalGas Mitigated	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6389	39.6389	7.6000e-004	7.3000e-004	39.8745
NaturalGas Unmitigated	4.0100e-003	0.0342	0.0146	2.2000e-004		2.7700e-003	2.7700e-003		2.7700e-003	2.7700e-003	0.0000	39.6389	39.6389	7.6000e-004	7.3000e-004	39.8745

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	706302	3.8100e-003	0.0326	0.0139	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.6910	37.6910	7.2000e-004	6.9000e-004	37.9149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36503.7	2.0000e-004	1.6800e-003	7.2000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9480	1.9480	4.0000e-005	4.0000e-005	1.9596
Total		**4.0100e-003**	**0.0342**	**0.0146**	**2.2000e-004**		**2.7700e-003**	**2.7700e-003**		**2.7700e-003**	**2.7700e-003**	**0.0000**	**39.6389**	**39.6389**	**7.6000e-004**	**7.3000e-004**	**39.8745**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	706302	3.8100e-003	0.0326	0.0139	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.6910	37.6910	7.2000e-004	6.9000e-004	37.9149
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	36503.7	2.0000e-004	1.6800e-003	7.2000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9480	1.9480	4.0000e-005	4.0000e-005	1.9596
Total		**4.0100e-003**	**0.0342**	**0.0146**	**2.2000e-004**		**2.7700e-003**	**2.7700e-003**		**2.7700e-003**	**2.7700e-003**	**0.0000**	**39.6389**	**39.6389**	**7.6000e-004**	**7.3000e-004**	**39.8745**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	157686	80.9666	2.0700e-003	4.3000e-004	81.1463
Parking Lot	24640	12.6518	3.2000e-004	7.0000e-005	12.6799
Single Family Housing	7281.63	3.7389	1.0000e-004	2.0000e-005	3.7472
Total		**97.3573**	**2.4900e-003**	**5.2000e-004**	**97.5734**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	157686	80.9666	2.0700e-003	4.3000e-004	81.1463
Parking Lot	24640	12.6518	3.2000e-004	7.0000e-005	12.6799
Single Family Housing	7281.63	3.7389	1.0000e-004	2.0000e-005	3.7472
Total		**97.3573**	**2.4900e-003**	**5.2000e-004**	**97.5734**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678
Unmitigated	0.1552	6.1100e-003	0.5270	1.3000e-004		0.0113	0.0113		0.0113	0.0113	0.7859	0.7419	1.5278	7.7000e-004	7.0000e-005	1.5678

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0584	6.6000e-004	0.0644	1.0000e-004		8.8200e-003	8.8200e-003		8.8200e-003	8.8200e-003	0.7859	0.0000	0.7859	0.0000	7.0000e-005	0.8066
Landscaping	0.0148	5.4500e-003	0.4626	2.0000e-005		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	0.7419	0.7419	7.7000e-004	0.0000	0.7612
Total	**0.1552**	**6.1100e-003**	**0.5270**	**1.2000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.7859**	**0.7419**	**1.5278**	**7.7000e-004**	**7.0000e-005**	**1.5678**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0584	6.6000e-004	0.0644	1.0000e-004		8.8200e-003	8.8200e-003		8.8200e-003	8.8200e-003	0.7859	0.0000	0.7859	0.0000	7.0000e-005	0.8066
Landscaping	0.0148	5.4500e-003	0.4626	2.0000e-005		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	0.7419	0.7419	7.7000e-004	0.0000	0.7612
Total	**0.1552**	**6.1100e-003**	**0.5270**	**1.2000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.7859**	**0.7419**	**1.5278**	**7.7000e-004**	**7.0000e-005**	**1.5678**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.8078	0.0661	1.6400e-003	19.9492
Unmitigated	17.8078	0.0661	1.6400e-003	19.9492

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.94728 / 0.389455	15.8587	0.0638	1.5800e-003	17.9253
Parking Lot	0 / 0.24528	1.3992	4.0000e-005	1.0000e-005	1.4023
Single Family Housing	0.067525 / 0.013505	0.5499	2.2100e-003	5.0000e-005	0.6216
Total		**17.8078**	**0.0661**	**1.6400e-003**	**19.9492**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.94728 / 0.389455	15.8587	0.0638	1.5800e-003	17.9253
Parking Lot	0 / 0.24528	1.3992	4.0000e-005	1.0000e-005	1.4023
Single Family Housing	0.067525 / 0.013505	0.5499	2.2100e-003	5.0000e-005	0.6216
Total		**17.8078**	**0.0661**	**1.6400e-003**	**19.9492**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.7845	0.2828	0.0000	11.8534
Unmitigated	4.7845	0.2828	0.0000	11.8534

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23.03	4.6749	0.2763	0.0000	11.5818
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.54	0.1096	6.4800e-003	0.0000	0.2716
Total		**4.7845**	**0.2828**	**0.0000**	**11.8534**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23.03	4.6749	0.2763	0.0000	11.5818
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.54	0.1096	6.4800e-003	0.0000	0.2716
Total		**4.7845**	**0.2828**	**0.0000**	**11.8534**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

	GHG Emission Factors (metric tons/mile)			
Year	CO2	CH4	N2O	CO2e
	1	*25*	*298*	
2015	4.83E-04	3.12E-08	-	4.84E-04
2018	4.51E-04	2.39E-08	-	4.52E-04
2021	4.17E-04	1.90E-08	-	4.18E-04
2022	4.06E-04	1.78E-08	-	4.06E-04
2023	3.92E-04	1.66E-08	-	3.93E-04
2024	3.82E-04	1.58E-08	-	3.83E-04
2025	3.71E-04	1.50E-08	-	3.71E-04
2026	3.61E-04	1.42E-08	-	3.61E-04
2027	3.52E-04	1.36E-08	-	3.52E-04
2028	3.45E-04	1.31E-08	-	3.45E-04
2029	3.38E-04	1.26E-08	-	3.38E-04
2030	3.32E-04	1.22E-08	-	3.32E-04
2031	3.27E-04	1.18E-08	-	3.28E-04
2032	3.23E-04	1.15E-08	-	3.23E-04
2033	3.19E-04	1.12E-08	-	3.19E-04
2034	3.16E-04	1.10E-08	-	3.16E-04
2035	3.13E-04	1.08E-08	-	3.14E-04
2036	3.11E-04	1.06E-08	-	3.12E-04
2037	3.10E-04	1.04E-08	-	3.10E-04
2038	3.09E-04	1.03E-08	-	3.09E-04
2039	3.08E-04	1.02E-08	-	3.08E-04
2040	3.07E-04	1.01E-08	-	3.07E-04
2041	3.07E-04	1.00E-08	-	3.07E-04
2042	3.06E-04	9.94E-09	-	3.07E-04
2043	3.06E-04	9.89E-09	-	3.06E-04
2044	3.06E-04	9.82E-09	-	3.07E-04
2045	3.06E-04	9.76E-09	-	3.07E-04
2046	3.07E-04	9.65E-09	-	3.07E-04
2047	3.07E-04	9.61E-09	-	3.07E-04
2048	3.07E-04	9.59E-09	-	3.08E-04
2049	3.08E-04	9.56E-09	-	3.08E-04
2050	3.08E-04	9.53E-09	-	3.09E-04

Source: EMFAC2014, South Coast Air Basin (Los Angeles County), "Emissions" (or "Burden") mode.

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Scenario	Year	VMT/year	GHG Emission Factors (metric tons/year) CO2	CH4	N2O	CO2e
			1	*25*	*298*	
Existing Uses	2015	939,145	453.51	0.03	-	454

Source: ESA 2017

Appendix B

Project Construction and Operational Emissions

ESA

B-1 Project Construction Emissions

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Air Quality and Greenhouse Gas Assessment

Project Information

Land Use	CalEEMod Land Use Type	Units		
Residential	High-rise Apartment	210	DU	242,285 sf
Recreational	Hotel	136	rooms	80,335 sf
Retail	Strip Mall	3.5	KSF	3,450 sf
Recreational	Restaurant	9.1	KSF	9,050 sf
Parking	Unenclosed Parking with Elevator	232	spaces	100,483 sf
Parking	Enclosed Parking with Elevator	206	spaces	89,222 sf
Pool/Deck/Spa	Recreational Swimming Pool	4.8	KSF	4,840 sf
Fitness Center	Health Club	2.5	KSF	2,530 sf
Other Open Space/Amenities	City Park	18.5	KSF	18,535 sf
Total Building Area (excluding parking and open space)				335,120 sf
Total Lot Area (acres)/Developed Area (sf)		1.16	acres	

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

Note:

a. California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2014 with 2010 Census Benchmark, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php. Accessed September 2014.

Source: 6220 West Yucca Design Plans, prepared by Togawa Smith Martin 2016.

Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs

CalEEMod Construction Phase	Start Date	End Date	No. Work Days	Demo (CY)	Demo Truck Capacity (CY)	Demo Truck Total One-Way Trips	Demo Truck Daily One-Way Trips	Soil Export (CY)	Soil Import (CY)	Soil Haul Truck Capacity (CY)	Soil Haul Truck Total One-Way Trips	Soil Haul Truck Daily One-Way Trips	Vendor One-Way Trips/Max Day [a]	Worker One-Way Trips/Max Day [b]
Demolition	1/1/2018	1/21/2018	15	5,000	10	1,000	67						6	18
Site Preparation	1/22/2018	1/31/2018	8											18
Grading/Excavation	2/1/2018	5/31/2018	86					120,000	-	14	17,200	200	6	20
Building Construction 1	6/1/2018	6/30/2019	281										73	280
Building Construction 2	7/1/2019	10/31/2019	89										73	280
Paving	9/1/2019	12/31/2019	87											18
Architectural Coating	7/1/2019	10/31/2019	89											56

Notes:

a. Vendor trips are associated with the Building Construction phase and are based on CalEEMod assumptions.

b. Worker trips are based on CalEEMod assumptions.

Source: ESA 2017.

6220 West Yucca Street Mixed Use Project
Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Demolition

Demolition Schedule				**Notes**
Start Date	1/1/2018			
End Date	1/21/2018			
Work Days	15			

Demolition Quantities				
Land Use	**Amount**	***Units***		
6220-6224 Yucca	27.0	*KSF*		Estimate from Google Earth, two story multi-family
6210-6216 Yucca	16.0	*KSF*		Estimate from Google Earth, two story multi-family
1765-1779 Vista del Mar	5.3	*KSF*		Estimate from Google Earth, single story and two story single-family
Total	**48.3**	*KSF*		
Total (rounded up)	**50.0**		<-------	**ENTER VALUE INTO CALEEMOD**

Demolition Volume				
Total Area (KSF)	50			
Floor Height (ft)	10			Assumed
Building Volume (ft3)	500,000			
Building Volume (CY)	18,519			
Debris Volume (CY)	5,000	*(rounded, estimated)*		Rounded, 1 CY building volume = 0.25 CY waste volume
Truck Size (CY)	10			
Total One-way Truck Trips	**1,000**	*(rounded, estimated)*	<-------	**ENTER VALUE INTO CALEEMOD**
Daily One-way Truck Trips	67	*trips/day*		

6220 West Yucca Street Mixed Use Project
Air Quality and Greenhouse Gas Assessment

Construction Assumptions - Excavation

Demolition Schedule

Start Date	2/1/2018
End Date	5/31/2018
Duration (days)	86

Estimated Soil Excavation

Land Use	Height	Area		Resulting Volume		Soil Export
Loading Area	15 feet	1.0 KSF	=	18,150 ft3	=	672 CY
Building 1 Sub Parking	11 feet	108.0 KSF	=	1,437,480 ft3	=	53,240 CY
Building 2 Sub Parking	11 feet	7.0 KSF	=	93,170 ft3	=	3,451 CY
Foundation	20 feet	48.0 KSF (footprint)	=	1,161,600 ft3	=	43,022 CY
Total						**100,385 CY**
Total with 10% Contingency Added						**110,424 CY**

Total Soil Export (CY)	**120,000**	*(rounded, estimated)*	<-------	ENTER VALUE INTO CALEEMOD
Truck Size (CY)	**14**			
Total One-way Truck Trips	**17,200**		<-------	ENTER VALUE INTO CALEEMOD
Daily One-way Truck Trips	200	*trips/day*		

6220 W Yucca Street Project - Construction

South Coast Air Basin, Annual

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	601
Hotel	136.00	Room	0.21	80,335.00	0
Strip Mall	3.45	1000sqft	0.05	3,450.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	595	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Construction Phase - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

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Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Off-road Equipment - Refer to "Resource Loaded Construction Schedule" worksheet.

Grading -

Demolition -

Trips and VMT - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet.

Construction Off-road Equipment Mitigation - Tier 3+DPF Equipment; Tier 4 Equipment (for equipment 90 HP and greater); Water Unpaved Roads and Exposed Areas 3 X Daily; Limit On-Site Speed to 15 MPH or less.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	FuelType	Diesel	CNG
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	89.00
tblConstructionPhase	NumDays	200.00	281.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	4.00	86.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	NumDays	2.00	8.00
tblConstructionPhase	NumDays	200.00	89.00
tblConstructionPhase	PhaseEndDate	12/10/2018	10/31/2019
tblConstructionPhase	PhaseEndDate	11/12/2018	6/30/2019
tblConstructionPhase	PhaseEndDate	1/26/2018	1/21/2018
tblConstructionPhase	PhaseEndDate	2/5/2018	5/31/2018
tblConstructionPhase	PhaseEndDate	11/26/2018	12/31/2019
tblConstructionPhase	PhaseEndDate	1/30/2018	1/31/2018
tblConstructionPhase	PhaseStartDate	11/27/2018	7/1/2019
tblConstructionPhase	PhaseStartDate	2/6/2018	6/1/2018

tblConstructionPhase	PhaseStartDate	1/31/2018	2/1/2018
tblConstructionPhase	PhaseStartDate	11/13/2018	9/1/2019
tblConstructionPhase	PhaseStartDate	1/27/2018	1/22/2018
tblGrading	MaterialExported	0.00	120,000.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	0.06	0.05
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	595
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripNumber	227.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	11,865.00	17,200.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	15.00	18.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.5595	7.3070	4.1161	0.0154	0.7661	0.2021	0.9682	0.2688	0.1881	0.4569	0.0000	1,455.0038	1,455.0038	0.1748	0.0000	1,459.3740
2019	1.6099	2.9084	3.3380	8.4300e-003	0.4209	0.1194	0.5403	0.1129	0.1120	0.2250	0.0000	770.3265	770.3265	0.0816	0.0000	772.3670
Maximum	**1.6099**	**7.3070**	**4.1161**	**0.0154**	**0.7661**	**0.2021**	**0.9682**	**0.2688**	**0.1881**	**0.4569**	**0.0000**	**1,455.0038**	**1,455.0038**	**0.1748**	**0.0000**	**1,459.3740**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.2811	4.3175	5.6139	0.0154	0.5662	0.0285	0.5947	0.1772	0.0277	0.2049	0.0000	1,462.3326	1,462.3326	0.1771	0.0000	1,466.7599
2019	1.4599	1.6796	4.6401	8.4300e-003	0.4209	0.0178	0.4387	0.1129	0.0173	0.1302	0.0000	776.4467	776.4467	0.0836	0.0000	778.5356
Maximum	**1.4599**	**4.3175**	**5.6139**	**0.0154**	**0.5662**	**0.0285**	**0.5947**	**0.1772**	**0.0277**	**0.2049**	**0.0000**	**1,462.3326**	**1,462.3326**	**0.1771**	**0.0000**	**1,466.7599**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.75**	**41.29**	**-37.56**	**0.00**	**16.84**	**85.61**	**31.49**	**23.99**	**85.03**	**50.86**	**0.00**	**-0.60**	**-0.60**	**-1.64**	**0.00**	**-0.61**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2018	3-31-2018	3.0475	1.6724
2	4-1-2018	6-30-2018	2.7820	1.6908
3	7-1-2018	9-30-2018	0.9563	0.5659
4	10-1-2018	12-31-2018	0.9656	0.5752
5	1-1-2019	3-31-2019	0.8718	0.5312
6	4-1-2019	6-30-2019	0.8733	0.5290
7	7-1-2019	9-30-2019	1.6665	1.4326
		Highest	3.0475	1.6908

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/21/2018	5	15	
2	Site Preparation	Site Preparation	1/22/2018	1/31/2018	5	8	
3	Grading	Grading	2/1/2018	5/31/2018	5	86	
4	Building Construction 1	Building Construction	6/1/2018	6/30/2019	5	281	
5	Paving	Paving	9/1/2019	12/31/2019	5	87	
6	Architectural Coating	Architectural Coating	7/1/2019	10/31/2019	5	89	
7	Building Construction 2	Building Construction	7/1/2019	10/31/2019	5	89	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 86

Acres of Paving: 0.2

Residential Indoor: 490,627; Residential Outdoor: 163,542; Non-Residential Indoor: 143,048; Non-Residential Outdoor: 47,683; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction 1	Generator Sets	1	8.00	84	0.74
Building Construction 1	Cranes	0	6.00	231	0.29
Building Construction 1	Forklifts	3	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	2	6.00	130	0.42
Paving	Rollers	2	7.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction 1	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	7.00	247	0.40
Building Construction 1	Welders	0	8.00	46	0.45
Building Construction 2	Cranes	0	6.00	231	0.29
Building Construction 2	Forklifts	0	6.00	89	0.20
Building Construction 2	Generator Sets	1	8.00	84	0.74
Building Construction 2	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction 2	Welders	0	8.00	46	0.45
Demolition	Excavators	1	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction 1	Other Construction Equipment	1	8.00	172	0.42

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	56.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	6	280.00	73.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	18.00	6.00	1,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	17,200.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 2	2	280.00	73.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0257	0.2708	0.1428	2.4000e-004		0.0145	0.0145		0.0133	0.0133	0.0000	21.6245	21.6245	6.7300e-003	0.0000	21.7928
Total	**0.0257**	**0.2708**	**0.1428**	**2.4000e-004**	**0.0246**	**0.0145**	**0.0391**	**3.7300e-003**	**0.0133**	**0.0171**	**0.0000**	**21.6245**	**21.6245**	**6.7300e-003**	**0.0000**	**21.7928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.1625	0.0315	4.0000e-004	8.5900e-003	6.1000e-004	9.2100e-003	2.3600e-003	5.9000e-004	2.9500e-003	0.0000	38.7952	38.7952	2.8500e-003	0.0000	38.8666
Vendor	2.0000e-004	5.5800e-003	1.4600e-003	1.0000e-005	2.8000e-004	4.0000e-005	3.2000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.1182	1.1182	8.0000e-005	0.0000	1.1202
Worker	7.2000e-004	5.9000e-004	6.3100e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.4222	1.4222	5.0000e-005	0.0000	1.4234
Total	**5.5200e-003**	**0.1687**	**0.0393**	**4.3000e-004**	**0.0104**	**6.6000e-004**	**0.0110**	**2.8300e-003**	**6.4000e-004**	**3.4700e-003**	**0.0000**	**41.3356**	**41.3356**	**2.9800e-003**	**0.0000**	**41.4102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.6000e-003	0.0000	9.6000e-003	1.4500e-003	0.0000	1.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0126	0.1396	2.4000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	21.6245	21.6245	6.7300e-003	0.0000	21.7928
Total	**2.9000e-003**	**0.0126**	**0.1396**	**2.4000e-004**	**9.6000e-003**	**3.9000e-004**	**9.9900e-003**	**1.4500e-003**	**3.9000e-004**	**1.8400e-003**	**0.0000**	**21.6245**	**21.6245**	**6.7300e-003**	**0.0000**	**21.7928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.1625	0.0315	4.0000e-004	8.5900e-003	6.1000e-004	9.2100e-003	2.3600e-003	5.9000e-004	2.9500e-003	0.0000	38.7952	38.7952	2.8500e-003	0.0000	38.8666
Vendor	2.0000e-004	5.5800e-003	1.4600e-003	1.0000e-005	2.8000e-004	4.0000e-005	3.2000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.1182	1.1182	8.0000e-005	0.0000	1.1202
Worker	7.2000e-004	5.9000e-004	6.3100e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.4222	1.4222	5.0000e-005	0.0000	1.4234
Total	**5.5200e-003**	**0.1687**	**0.0393**	**4.3000e-004**	**0.0104**	**6.6000e-004**	**0.0110**	**2.8300e-003**	**6.4000e-004**	**3.4700e-003**	**0.0000**	**41.3356**	**41.3356**	**2.9800e-003**	**0.0000**	**41.4102**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0632	0.0000	0.0632	0.0348	0.0000	0.0348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0165	0.1740	0.0833	1.4000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	12.7335	12.7335	3.9600e-003	0.0000	12.8326
Total	**0.0165**	**0.1740**	**0.0833**	**1.4000e-004**	**0.0632**	**9.3900e-003**	**0.0726**	**0.0348**	**8.6400e-003**	**0.0434**	**0.0000**	**12.7335**	**12.7335**	**3.9600e-003**	**0.0000**	**12.8326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	3.1000e-004	3.3700e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7585	0.7585	3.0000e-005	0.0000	0.7592
Total	**3.8000e-004**	**3.1000e-004**	**3.3700e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7585**	**0.7585**	**3.0000e-005**	**0.0000**	**0.7592**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0247	0.0000	0.0247	0.0136	0.0000	0.0136	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	7.3900e-003	0.0777	1.4000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	12.7334	12.7334	3.9600e-003	0.0000	12.8326
Total	**1.7100e-003**	**7.3900e-003**	**0.0777**	**1.4000e-004**	**0.0247**	**2.3000e-004**	**0.0249**	**0.0136**	**2.3000e-004**	**0.0138**	**0.0000**	**12.7334**	**12.7334**	**3.9600e-003**	**0.0000**	**12.8326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	3.1000e-004	3.3700e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7585	0.7585	3.0000e-005	0.0000	0.7592
Total	**3.8000e-004**	**3.1000e-004**	**3.3700e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7585**	**0.7585**	**3.0000e-005**	**0.0000**	**0.7592**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2398	0.0000	0.2398	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1633	1.8888	1.1411	2.2800e-003		0.0835	0.0835		0.0769	0.0769	0.0000	207.9049	207.9049	0.0647	0.0000	209.5230
Total	**0.1633**	**1.8888**	**1.1411**	**2.2800e-003**	**0.2398**	**0.0835**	**0.3234**	**0.1117**	**0.0769**	**0.1885**	**0.0000**	**207.9049**	**207.9049**	**0.0647**	**0.0000**	**209.5230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0791	2.7955	0.5414	6.8000e-003	0.1478	0.0106	0.1584	0.0406	0.0101	0.0507	0.0000	667.2776	667.2776	0.0491	0.0000	668.5049
Vendor	1.1300e-003	0.0320	8.3800e-003	7.0000e-005	1.6300e-003	2.3000e-004	1.8600e-003	4.7000e-004	2.2000e-004	6.9000e-004	0.0000	6.4111	6.4111	4.6000e-004	0.0000	6.4226
Worker	4.5600e-003	3.7400e-003	0.0402	1.0000e-004	9.4400e-003	8.0000e-005	9.5100e-003	2.5100e-003	7.0000e-005	2.5800e-003	0.0000	9.0600	9.0600	3.1000e-004	0.0000	9.0678
Total	**0.0848**	**2.8313**	**0.5900**	**6.9700e-003**	**0.1589**	**0.0109**	**0.1697**	**0.0436**	**0.0104**	**0.0539**	**0.0000**	**682.7487**	**682.7487**	**0.0499**	**0.0000**	**683.9953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0935	0.0000	0.0935	0.0436	0.0000	0.0436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0281	0.1216	1.2370	2.2800e-003		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	207.9047	207.9047	0.0647	0.0000	209.5228
Total	**0.0281**	**0.1216**	**1.2370**	**2.2800e-003**	**0.0935**	**3.7400e-003**	**0.0973**	**0.0436**	**3.7400e-003**	**0.0473**	**0.0000**	**207.9047**	**207.9047**	**0.0647**	**0.0000**	**209.5228**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0791	2.7955	0.5414	6.8000e-003	0.1478	0.0106	0.1584	0.0406	0.0101	0.0507	0.0000	667.2776	667.2776	0.0491	0.0000	668.5049
Vendor	1.1300e-003	0.0320	8.3800e-003	7.0000e-005	1.6300e-003	2.3000e-004	1.8600e-003	4.7000e-004	2.2000e-004	6.9000e-004	0.0000	6.4111	6.4111	4.6000e-004	0.0000	6.4226
Worker	4.5600e-003	3.7400e-003	0.0402	1.0000e-004	9.4400e-003	8.0000e-005	9.5100e-003	2.5100e-003	7.0000e-005	2.5800e-003	0.0000	9.0600	9.0600	3.1000e-004	0.0000	9.0678
Total	**0.0848**	**2.8313**	**0.5900**	**6.9700e-003**	**0.1589**	**0.0109**	**0.1697**	**0.0436**	**0.0104**	**0.0539**	**0.0000**	**682.7487**	**682.7487**	**0.0499**	**0.0000**	**683.9953**

3.5 Building Construction 1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1263	1.1922	0.9411	1.4100e-003		0.0763	0.0763		0.0717	0.0717	0.0000	125.8527	125.8527	0.0289	0.0000	126.5753
Total	**0.1263**	**1.1922**	**0.9411**	**1.4100e-003**		**0.0763**	**0.0763**		**0.0717**	**0.0717**	**0.0000**	**125.8527**	**125.8527**	**0.0289**	**0.0000**	**126.5753**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0243	0.6884	0.1802	1.4200e-003	0.0350	4.9600e-003	0.0399	0.0101	4.7400e-003	0.0148	0.0000	137.8630	137.8630	9.9300e-003	0.0000	138.1113
Worker	0.1128	0.0926	0.9949	2.4800e-003	0.2335	1.9100e-003	0.2354	0.0620	1.7600e-003	0.0638	0.0000	224.1825	224.1825	7.6800e-003	0.0000	224.3744
Total	**0.1371**	**0.7810**	**1.1752**	**3.9000e-003**	**0.2684**	**6.8700e-003**	**0.2753**	**0.0721**	**6.5000e-003**	**0.0786**	**0.0000**	**362.0454**	**362.0454**	**0.0176**	**0.0000**	**362.4856**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0207	0.3947	2.3518	1.4100e-003		5.7600e-003	5.7600e-003		5.7600e-003	5.7600e-003	0.0000	133.1818	133.1818	0.0312	0.0000	133.9615
Total	**0.0207**	**0.3947**	**2.3518**	**1.4100e-003**		**5.7600e-003**	**5.7600e-003**		**5.7600e-003**	**5.7600e-003**	**0.0000**	**133.1818**	**133.1818**	**0.0312**	**0.0000**	**133.9615**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0243	0.6884	0.1802	1.4200e-003	0.0350	4.9600e-003	0.0399	0.0101	4.7400e-003	0.0148	0.0000	137.8630	137.8630	9.9300e-003	0.0000	138.1113
Worker	0.1128	0.0926	0.9949	2.4800e-003	0.2335	1.9100e-003	0.2354	0.0620	1.7600e-003	0.0638	0.0000	224.1825	224.1825	7.6800e-003	0.0000	224.3744
Total	**0.1371**	**0.7810**	**1.1752**	**3.9000e-003**	**0.2684**	**6.8700e-003**	**0.2753**	**0.0721**	**6.5000e-003**	**0.0786**	**0.0000**	**362.0454**	**362.0454**	**0.0176**	**0.0000**	**362.4856**

3.5 Building Construction 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0970	0.9283	0.7924	1.1900e-003		0.0574	0.0574		0.0539	0.0539	0.0000	105.6930	105.6930	0.0242	0.0000	106.2984
Total	**0.0970**	**0.9283**	**0.7924**	**1.1900e-003**		**0.0574**	**0.0574**		**0.0539**	**0.0539**	**0.0000**	**105.6930**	**105.6930**	**0.0242**	**0.0000**	**106.2984**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.5513	0.1406	1.2000e-003	0.0297	3.6100e-003	0.0333	8.5600e-003	3.4500e-003	0.0120	0.0000	115.9346	115.9346	8.1400e-003	0.0000	116.1379
Worker	0.0870	0.0694	0.7542	2.0400e-003	0.1981	1.5800e-003	0.1997	0.0526	1.4600e-003	0.0541	0.0000	184.2570	184.2570	5.7800e-003	0.0000	184.4015
Total	**0.1057**	**0.6207**	**0.8948**	**3.2400e-003**	**0.2278**	**5.1900e-003**	**0.2330**	**0.0612**	**4.9100e-003**	**0.0661**	**0.0000**	**300.1916**	**300.1916**	**0.0139**	**0.0000**	**300.5394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.3246	1.9774	1.1900e-003		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	111.8133	111.8133	0.0262	0.0000	112.4671
Total	**0.0173**	**0.3246**	**1.9774**	**1.1900e-003**		**4.6600e-003**	**4.6600e-003**		**4.6600e-003**	**4.6600e-003**	**0.0000**	**111.8133**	**111.8133**	**0.0262**	**0.0000**	**112.4671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.5513	0.1406	1.2000e-003	0.0297	3.6100e-003	0.0333	8.5600e-003	3.4500e-003	0.0120	0.0000	115.9346	115.9346	8.1400e-003	0.0000	116.1379
Worker	0.0870	0.0694	0.7542	2.0400e-003	0.1981	1.5800e-003	0.1997	0.0526	1.4600e-003	0.0541	0.0000	184.2570	184.2570	5.7800e-003	0.0000	184.4015
Total	**0.1057**	**0.6207**	**0.8948**	**3.2400e-003**	**0.2278**	**5.1900e-003**	**0.2330**	**0.0612**	**4.9100e-003**	**0.0661**	**0.0000**	**300.1916**	**300.1916**	**0.0139**	**0.0000**	**300.5394**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0647	0.6725	0.6542	1.0000e-003		0.0377	0.0377		0.0347	0.0347	0.0000	89.4566	89.4566	0.0283	0.0000	90.1642
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0647**	**0.6725**	**0.6542**	**1.0000e-003**		**0.0377**	**0.0377**		**0.0347**	**0.0347**	**0.0000**	**89.4566**	**89.4566**	**0.0283**	**0.0000**	**90.1642**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7700e-003	3.0100e-003	0.0327	9.0000e-005	8.5900e-003	7.0000e-005	8.6600e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.9886	7.9886	2.5000e-004	0.0000	7.9948
Total	**3.7700e-003**	**3.0100e-003**	**0.0327**	**9.0000e-005**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.9886**	**7.9886**	**2.5000e-004**	**0.0000**	**7.9948**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0147	0.1543	0.7552	1.0000e-003		2.4800e-003	2.4800e-003		2.4800e-003	2.4800e-003	0.0000	89.4565	89.4565	0.0283	0.0000	90.1641
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0147**	**0.1543**	**0.7552**	**1.0000e-003**		**2.4800e-003**	**2.4800e-003**		**2.4800e-003**	**2.4800e-003**	**0.0000**	**89.4565**	**89.4565**	**0.0283**	**0.0000**	**90.1641**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7700e-003	3.0100e-003	0.0327	9.0000e-005	8.5900e-003	7.0000e-005	8.6600e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.9886	7.9886	2.5000e-004	0.0000	7.9948
Total	**3.7700e-003**	**3.0100e-003**	**0.0327**	**9.0000e-005**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2800e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.9886**	**7.9886**	**2.5000e-004**	**0.0000**	**7.9948**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2264					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2264**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0120	9.5700e-003	0.1041	2.8000e-004	0.0273	2.2000e-004	0.0276	7.2600e-003	2.0000e-004	7.4600e-003	0.0000	25.4246	25.4246	8.0000e-004	0.0000	25.4446
Total	**0.0120**	**9.5700e-003**	**0.1041**	**2.8000e-004**	**0.0273**	**2.2000e-004**	**0.0276**	**7.2600e-003**	**2.0000e-004**	**7.4600e-003**	**0.0000**	**25.4246**	**25.4246**	**8.0000e-004**	**0.0000**	**25.4446**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2264					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2264**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0120	9.5700e-003	0.1041	2.8000e-004	0.0273	2.2000e-004	0.0276	7.2600e-003	2.0000e-004	7.4600e-003	0.0000	25.4246	25.4246	8.0000e-004	0.0000	25.4446
Total	**0.0120**	**9.5700e-003**	**0.1041**	**2.8000e-004**	**0.0273**	**2.2000e-004**	**0.0276**	**7.2600e-003**	**2.0000e-004**	**7.4600e-003**	**0.0000**	**25.4246**	**25.4246**	**8.0000e-004**	**0.0000**	**25.4446**

3.8 Building Construction 2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0275	0.2461	0.2425	4.0000e-004		0.0153	0.0153		0.0148	0.0148	0.0000	34.4633	34.4633	4.5400e-003	0.0000	34.5768
Total	**0.0275**	**0.2461**	**0.2425**	**4.0000e-004**		**0.0153**	**0.0153**		**0.0148**	**0.0148**	**0.0000**	**34.4633**	**34.4633**	**4.5400e-003**	**0.0000**	**34.5768**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3804	0.0970	8.3000e-004	0.0205	2.4900e-003	0.0230	5.9100e-003	2.3800e-003	8.2900e-003	0.0000	79.9859	79.9859	5.6100e-003	0.0000	80.1262
Worker	0.0600	0.0479	0.5203	1.4100e-003	0.1367	1.0900e-003	0.1378	0.0363	1.0000e-003	0.0373	0.0000	127.1231	127.1231	3.9900e-003	0.0000	127.2227
Total	**0.0729**	**0.4282**	**0.6173**	**2.2400e-003**	**0.1572**	**3.5800e-003**	**0.1608**	**0.0422**	**3.3800e-003**	**0.0456**	**0.0000**	**207.1089**	**207.1089**	**9.6000e-003**	**0.0000**	**207.3489**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1200e-003	0.1392	0.2587	4.0000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	34.4632	34.4632	4.5400e-003	0.0000	34.5767
Total	**7.1200e-003**	**0.1392**	**0.2587**	**4.0000e-004**		**1.5700e-003**	**1.5700e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**34.4632**	**34.4632**	**4.5400e-003**	**0.0000**	**34.5767**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3804	0.0970	8.3000e-004	0.0205	2.4900e-003	0.0230	5.9100e-003	2.3800e-003	8.2900e-003	0.0000	79.9859	79.9859	5.6100e-003	0.0000	80.1262
Worker	0.0600	0.0479	0.5203	1.4100e-003	0.1367	1.0900e-003	0.1378	0.0363	1.0000e-003	0.0373	0.0000	127.1231	127.1231	3.9900e-003	0.0000	127.2227
Total	**0.0729**	**0.4282**	**0.6173**	**2.2400e-003**	**0.1572**	**3.5800e-003**	**0.1608**	**0.0422**	**3.3800e-003**	**0.0456**	**0.0000**	**207.1089**	**207.1089**	**9.6000e-003**	**0.0000**	**207.3489**

B-2 Project Operational Emissions

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Project Solid Waste Disposal Rates

Land Use	Project Units	Solid Waste Factor [a] (lbs/unit/day)	Solid Waste Before Diversion (tons/year)	Diversion Rate [b] (%)	Solid Waste After Diversion
Residential	210 DU	12.23	468.7	76%	112.5
Hotel [c]	156 DU	4	113.9	76%	27.3
Commercial/Restaurant	12.5 KSF	5	11.4	76%	2.7
Total Project					**142.6**

Notes:

a. Generation factors provided by the CalRecycle website: Estimated Solid Waste Generation Rates. Available https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 2017.

b. City of Los Angeles, Zero Waste Progress Report, (March 2013) 3. According to the Report, the City achieved a landfill diversion rate of approximately 76% by year 2012.

c. Hotel suites count as 2 rooms. The hotel proposes to include 20 suites; therefore, the total number of rooms for solid waste generation purposes is 116 + 2*20 = 156.

Source: ESA 2017.

Project Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

Project Water Demand Rates

Land Use	Units (DU, Rooms, or 1000 sqft)	Wastewater Generation [a] (gal/unit/day)	Water Demand [b] (120% factor) (gal/day)	Indoor Water Demand Rate (gal/year)	Outdoor Water Demand Rate (gal/year)	Indoor Water Reduction (%)	Reduced Indoor Water Demand Rate (gal/year)	Outdoor Water Reduction (%)	Reduced Outdoor Water Demand Rate (gal/year)
Multi-Family Residential	210		33,336	10,139,700	2,027,940	20%	8,111,760	20%	1,622,352
Studio	-	*75*	-						
One Bedroom	*104*	*110*	*13,728*						
Two Bedroom	*95*	*150*	*17,100*						
Three Bedroom	*11*	*190*	*2,508*						
Hotel [c]	156	120	22,464	6,832,800	1,366,560	20%	5,466,240	20%	1,093,248
Restaurant (seats)	509	30	18,324	5,573,550	1,114,710	20%	4,458,840	20%	891,768
Retail	3.45	25	104	31,481	6,296	20%	25,185	20%	5,037
Open Space (Bar/Public Table Area)	0.92	720	795	241,776	48,355	20%	193,421	20%	38,684
Spa (Fitness)	3.85	650	3,003	913,413	182,683	20%	730,730	20%	146,146
Parking Structure	189.71	20	4,553	-	1,661,816	-	-	20%	1,329,453
Total Water Demand				**23,732,720**	**6,408,360**		**18,986,176**		**5,126,688**

Notes:

a. Wastewater generation factors obtained from City of Los Angeles Bureau of Engineering, Sewer Capacity Availability Request (SCAR), dated January 10, 2017 and based on Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories, dated April 6, 2012. These factors do not account for water saving features incorporated into the Project.

b. Water demand rates are calculated based on the wastewater generation rates and increasing the factor by 20% to account for absorption, evaporation, consumption, irrigation, and other losses.

c. Hotel suites count as 2 rooms. The hotel proposes to include 20 suites; therefore, the total number of rooms for water demand purposes is 116 + 2*20 = 156.

Source: Southland Civil Engineering & Survey, LLP 2017; ESA 2017.

Project Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.

6220 W Yucca Street Project

Air Quality and Greenhouse Gas Assessment

Title 24 Energy Savings Adjustment

Project Energy Use Factors Adjustment

Nonresidential % savings over Title 24 (2013) =	5.0%
Residential % savings over Title 24 (2013) =	28.0%

	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
Title 24 (2013 - CalEEMod Default)					
Project Nonresidential Land Uses					
City Park [1]	-	-	2.63	-	-
Enclosed Parking with Elevator	3.92	0.19	2.63	-	-
Health Club	2.36	5.75	3.20	13.71	4.45
Hotel	2.68	2.89	2.20	20.02	4.06
Quality Restaurant	8.50	28.16	8.13	43.19	187.78
Recreational Swimming Pool [2]	-	-	3.20	13.71	-
Strip Mall	4.20	3.23	6.43	1.16	0.49
Unenclosed Parking with Elevator	-	0.19	2.63	-	-
Project Residential Land Uses					
Apartment High Rise	194.04	3,277.06	741.44	6,328.91	4,831.00
Title 24 (2016)					
Project Nonresidential Land Uses					
City Park [1]	-	-	2.50	-	-
Enclosed Parking with Elevator	3.72	0.19	2.50	-	-
Health Club	2.24	5.75	3.04	13.02	4.45
Hotel	2.55	2.89	2.09	19.02	4.06
Quality Restaurant	8.08	28.16	7.72	41.03	187.78
Recreational Swimming Pool [2]	-	-	3.04	13.02	-
Strip Mall	3.99	3.23	6.11	1.10	0.49
Unenclosed Parking with Elevator	-	0.19	2.50	-	-
Project Residential Land Uses					
Apartment High Rise	139.71	3,277.06	533.84	4,556.82	4,831.00

Notes:

1. CalEEMod does not provide energy rates for city park land use. For the purposes of this assessment, lighting electricity for city park (i.e., open space) assumed to be equivalent to parking electricity lighting demand.
2. CalEEMod does not provide energy rates for recreational swimming pool land use. For the purposes of this assessment, lighting electricity and T24 natural gas for the pool is assumed to be equivalent to health club electricity lighting and T24 natural gas demand.

Sources:

California Emissions Estimator Model (CalEEMod), version 2016.3.1.

California Energy Commission, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015. Available: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf. Accessed December 2016.

6220 W Yucca Street Project - Operations (Initial Year) - Area, Energy, Water, Waste

South Coast Air Basin, Annual

Emissions based on slightly greater square footage than proposed under the current design, which revised the total square footage slightly downward after completion of the emissions modeling. The change is less than 1% which would not materially affect the emissions modeling.

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	595	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Woodstoves - Assumes residential units equipped with natural gas hearths (210 DU) (SCAQMD Rule 445).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix.

Area Mitigation -

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10

tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	178.50	210.00
tblFireplaces	NumberNoFireplace	21.00	0.00
tblFireplaces	NumberWood	10.50	0.00
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00
tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	595
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	96.60	112.50

tblSolidWaste	SolidWasteGenerationRate	0.05	0.00
tblSolidWaste	SolidWasteGenerationRate	14.42	0.00
tblSolidWaste	SolidWasteGenerationRate	74.46	27.30
tblSolidWaste	SolidWasteGenerationRate	8.26	0.00
tblSolidWaste	SolidWasteGenerationRate	27.59	0.00
tblSolidWaste	SolidWasteGenerationRate	3.62	2.70
tblTripsAndVMT	HaulingTripNumber	227.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,200.00
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00
tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00
tblWoodstoves	NumberCatalytic	10.50	0.00
tblWoodstoves	NumberNoncatalytic	10.50	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	1,078.9248	1,078.9248	0.0431	0.0135	1,084.0329
Waste						0.0000	0.0000		0.0000	0.0000	28.9262	0.0000	28.9262	1.7095	0.0000	71.6635
Water						0.0000	0.0000		0.0000	0.0000	6.0234	82.0934	88.1169	0.6227	0.0154	108.2834

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	1,056.1329	1,056.1329	0.0422	0.0132	1,061.1311
Waste						0.0000	0.0000		0.0000	0.0000	28.9262	0.0000	28.9262	1.7095	0.0000	71.6635
Water						0.0000	0.0000		0.0000	0.0000	6.0234	82.0934	88.1169	0.6227	0.0154	108.2834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	743.3566	743.3566	0.0362	7.5000e-003	746.4961
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	758.2614	758.2614	0.0370	7.6500e-003	761.4639
NaturalGas Mitigated	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	312.7763	312.7763	5.9900e-003	5.7300e-003	314.6350
NaturalGas Unmitigated	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	320.6634	320.6634	6.1500e-003	5.8800e-003	322.5690

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.77773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	223.9062	0.0109	2.2600e-003	224.8519
City Park	46337.5	12.5059	6.1000e-004	1.3000e-004	12.5587
Enclosed Parking with Elevator	571913	154.3522	7.5200e-003	1.5600e-003	155.0041
Health Club	27905.9	7.5315	3.7000e-004	8.0000e-005	7.5633
Hotel	604923	163.2610	7.9600e-003	1.6500e-003	163.9506
Quality Restaurant	397838	107.3715	5.2300e-003	1.0800e-003	107.8250
Recreational Swimming Pool	14713.6	3.9710	1.9000e-004	4.0000e-005	3.9878
Strip Mall	45988.5	12.4117	6.0000e-004	1.3000e-004	12.4641
Unenclosed Parking with	270299	72.9504	3.5600e-003	7.4000e-004	73.2585
Total		**758.2614**	**0.0370**	**7.6700e-003**	**761.4639**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	217.4937	0.0106	2.1900e-003	218.4123
City Park	46337.5	12.5059	6.1000e-004	1.3000e-004	12.5587
Enclosed Parking with Elevator	555318	149.8733	7.3000e-003	1.5100e-003	150.5063
Health Club	27622.5	7.4550	3.6000e-004	8.0000e-005	7.4865
Hotel	594680	160.4966	7.8200e-003	1.6200e-003	161.1745
Quality Restaurant	394182	106.3847	5.1900e-003	1.0700e-003	106.8340
Recreational Swimming Pool	14713.6	3.9710	1.9000e-004	4.0000e-005	3.9878
Strip Mall	45300.2	12.2260	6.0000e-004	1.2000e-004	12.2776
Unenclosed Parking with	270299	72.9504	3.5600e-003	7.4000e-004	73.2585
Total		**743.3566**	**0.0362**	**7.5000e-003**	**746.4961**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675
Unmitigated	1.5110	0.0687	2.1965	3.9000e-004		0.0155	0.0155		0.0155	0.0155	0.0000	53.9811	53.9811	4.4300e-003	9.2000e-004	54.3675

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1000e-003	0.0435	0.0185	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4288	50.4288	9.7000e-004	9.2000e-004	50.7285
Landscaping	0.0665	0.0251	2.1780	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5523	3.5523	3.4700e-003	0.0000	3.6390
Total	**1.5110**	**0.0687**	**2.1965**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**53.9811**	**53.9811**	**4.4400e-003**	**9.2000e-004**	**54.3675**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.1000e-003	0.0435	0.0185	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4288	50.4288	9.7000e-004	9.2000e-004	50.7285
Landscaping	0.0665	0.0251	2.1780	1.1000e-004		0.0120	0.0120		0.0120	0.0120	0.0000	3.5523	3.5523	3.4700e-003	0.0000	3.6390
Total	**1.5110**	**0.0687**	**2.1965**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**53.9811**	**53.9811**	**4.4400e-003**	**9.2000e-004**	**54.3675**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	88.1169	0.6227	0.0154	108.2834
Unmitigated	88.1169	0.6227	0.0154	108.2834

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	35.9444	0.2660	6.5800e-003	44.5533
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.8748	9.0000e-005	2.0000e-005	1.8828
Health Club	0.193421 / 0.038684	0.8571	6.3400e-003	1.6000e-004	1.0624
Hotel	5.46624 / 1.09325	24.2217	0.1792	4.4300e-003	30.0230
Quality Restaurant	4.45884 / 0.891768	19.7578	0.1462	3.6200e-003	24.4899
Recreational Swimming Pool	0.73073 / 0.146146	3.2380	0.0240	5.9000e-004	4.0135
Strip Mall	0.025185 / 0.005037	0.1116	8.3000e-004	2.0000e-005	0.1383
Unenclosed Parking with Elevator	0 / 0.704185	2.1115	1.0000e-004	2.0000e-005	2.1204
Total		**88.1169**	**0.6227**	**0.0154**	**108.2834**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	35.9444	0.2660	6.5800e-003	44.5533
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.8748	9.0000e-005	2.0000e-005	1.8828
Health Club	0.193421 / 0.038684	0.8571	6.3400e-003	1.6000e-004	1.0624
Hotel	5.46624 / 1.09325	24.2217	0.1792	4.4300e-003	30.0230
Quality Restaurant	4.45884 / 0.891768	19.7578	0.1462	3.6200e-003	24.4899
Recreational Swimming Pool	0.73073 / 0.146146	3.2380	0.0240	5.9000e-004	4.0135
Strip Mall	0.025185 / 0.005037	0.1116	8.3000e-004	2.0000e-005	0.1383
Unenclosed Parking with Elevator	0 / 0.704185	2.1115	1.0000e-004	2.0000e-005	2.1204
Total		**88.1169**	**0.6227**	**0.0154**	**108.2834**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.9262	1.7095	0.0000	71.6635
Unmitigated	28.9262	1.7095	0.0000	71.6635

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	112.5	22.8365	1.3496	0.0000	56.5764
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	27.3	5.5417	0.3275	0.0000	13.7292
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.7	0.5481	0.0324	0.0000	1.3578
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9262**	**1.7095**	**0.0000**	**71.6635**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	112.5	22.8365	1.3496	0.0000	56.5764
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	27.3	5.5417	0.3275	0.0000	13.7292
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.7	0.5481	0.0324	0.0000	1.3578
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9262**	**1.7095**	**0.0000**	**71.6635**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

6220 W Yucca Street Project - Operations (2024) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2024
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	533	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 40% RPS by 2024.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	533
tblProjectCharacteristics	OperationalYear	2018	2024
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	999.9127	999.9127	0.0431	0.0135	1,005.0208
Water						0.0000	0.0000		0.0000	0.0000	6.0234	73.5392	79.5626	0.6227	0.0154	99.7291

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	978.6739	978.6739	0.0422	0.0132	983.6721
Water						0.0000	0.0000		0.0000	0.0000	6.0234	73.5392	79.5626	0.6227	0.0154	99.7291

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	665.8976	665.8976	0.0362	7.5000e-003	669.0371
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	679.2493	679.2493	0.0370	7.6500e-003	682.4518

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.77773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	200.5748	0.0109	2.2600e-003	201.5205
City Park	46337.5	11.2028	6.1000e-004	1.3000e-004	11.2556
Enclosed Parking with Elevator	571913	138.2684	7.5200e-003	1.5600e-003	138.9203
Health Club	27905.9	6.7467	3.7000e-004	8.0000e-005	6.7785
Hotel	604923	146.2489	7.9600e-003	1.6500e-003	146.9385
Quality Restaurant	397838	96.1832	5.2300e-003	1.0800e-003	96.6367
Recreational Swimming Pool	14713.6	3.5572	1.9000e-004	4.0000e-005	3.5740
Strip Mall	45988.5	11.1184	6.0000e-004	1.3000e-004	11.1708
Unenclosed Parking with Elevator	270299	65.3488	3.5600e-003	7.4000e-004	65.6569
Total		**679.2493**	**0.0370**	**7.6700e-003**	**682.4518**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	194.8305	0.0106	2.1900e-003	195.7490
City Park	46337.5	11.2028	6.1000e-004	1.3000e-004	11.2556
Enclosed Parking with Elevator	555318	134.2562	7.3000e-003	1.5100e-003	134.8892
Health Club	27622.5	6.6782	3.6000e-004	8.0000e-005	6.7096
Hotel	594680	143.7726	7.8200e-003	1.6200e-003	144.4505
Quality Restaurant	394182	95.2993	5.1900e-003	1.0700e-003	95.7486
Recreational Swimming Pool	14713.6	3.5572	1.9000e-004	4.0000e-005	3.5740
Strip Mall	45300.2	10.9520	6.0000e-004	1.2000e-004	11.0036
Unenclosed Parking with Elevator	270299	65.3488	3.5600e-003	7.4000e-004	65.6569
Total		**665.8976**	**0.0362**	**7.5000e-003**	**669.0371**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	79.5626	0.6227	0.0154	99.7291
Unmitigated	79.5626	0.6227	0.0154	99.7291

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	32.4671	0.2660	6.5800e-003	41.0760
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.6795	9.0000e-005	2.0000e-005	1.6874
Health Club	0.193421 / 0.038684	0.7742	6.3400e-003	1.6000e-004	0.9794
Hotel	5.46624 / 1.09325	21.8785	0.1792	4.4300e-003	27.6797
Quality Restaurant	4.45884 / 0.891768	17.8464	0.1462	3.6200e-003	22.5785
Recreational Swimming Pool	0.73073 / 0.146146	2.9247	0.0240	5.9000e-004	3.7002
Strip Mall	0.025185 / 0.005037	0.1008	8.3000e-004	2.0000e-005	0.1275
Unenclosed Parking with Elevator	0 / 0.704185	1.8915	1.0000e-004	2.0000e-005	1.9004
Total		**79.5626**	**0.6227**	**0.0154**	**99.7291**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	32.4671	0.2660	6.5800e-003	41.0760
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.6795	9.0000e-005	2.0000e-005	1.6874
Health Club	0.193421 / 0.038684	0.7742	6.3400e-003	1.6000e-004	0.9794
Hotel	5.46624 / 1.09325	21.8785	0.1792	4.4300e-003	27.6797
Quality Restaurant	4.45884 / 0.891768	17.8464	0.1462	3.6200e-003	22.5785
Recreational Swimming Pool	0.73073 / 0.146146	2.9247	0.0240	5.9000e-004	3.7002
Strip Mall	0.025185 / 0.005037	0.1008	8.3000e-004	2.0000e-005	0.1275
Unenclosed Parking with Elevator	0 / 0.704185	1.8915	1.0000e-004	2.0000e-005	1.9004
Total		**79.5626**	**0.6227**	**0.0154**	**99.7291**

6220 W Yucca Street Project - Operations (2027) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	488	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 45% RPS by 2027.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	488
tblProjectCharacteristics	OperationalYear	2018	2027
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	942.5652	942.5652	0.0431	0.0135	947.6733
Water						0.0000	0.0000		0.0000	0.0000	6.0234	67.3304	73.3538	0.6227	0.0154	93.5204

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	922.4536	922.4536	0.0422	0.0132	927.4519
Water						0.0000	0.0000		0.0000	0.0000	6.0234	67.3304	73.3538	0.6227	0.0154	93.5204

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	609.6773	609.6773	0.0362	7.5000e-003	612.8169
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	621.9018	621.9018	0.0370	7.6500e-003	625.1043

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.77773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	183.6407	0.0109	2.2600e-003	184.5864
City Park	46337.5	10.2570	6.1000e-004	1.3000e-004	10.3098
Enclosed Parking with Elevator	571913	126.5947	7.5200e-003	1.5600e-003	127.2466
Health Club	27905.9	6.1771	3.7000e-004	8.0000e-005	6.2089
Hotel	604923	133.9015	7.9600e-003	1.6500e-003	134.5910
Quality Restaurant	397838	88.0627	5.2300e-003	1.0800e-003	88.5162
Recreational Swimming Pool	14713.6	3.2569	1.9000e-004	4.0000e-005	3.2737
Strip Mall	45988.5	10.1797	6.0000e-004	1.3000e-004	10.2321
Unenclosed Parking with Elevator	270299	59.8316	3.5600e-003	7.4000e-004	60.1397
Total		**621.9018**	**0.0370**	**7.6700e-003**	**625.1043**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	178.3814	0.0106	2.1900e-003	179.2999
City Park	46337.5	10.2570	6.1000e-004	1.3000e-004	10.3098
Enclosed Parking with Elevator	555318	122.9213	7.3000e-003	1.5100e-003	123.5543
Health Club	27622.5	6.1143	3.6000e-004	8.0000e-005	6.1458
Hotel	594680	131.6342	7.8200e-003	1.6200e-003	132.3121
Quality Restaurant	394182	87.2534	5.1900e-003	1.0700e-003	87.7027
Recreational Swimming Pool	14713.6	3.2569	1.9000e-004	4.0000e-005	3.2737
Strip Mall	45300.2	10.0273	6.0000e-004	1.2000e-004	10.0790
Unenclosed Parking with Elevator	270299	59.8316	3.5600e-003	7.4000e-004	60.1397
Total		**609.6773**	**0.0362**	**7.5000e-003**	**612.8169**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	73.3538	0.6227	0.0154	93.5204
Unmitigated	73.3538	0.6227	0.0154	93.5204

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	29.9433	0.2660	6.5800e-003	38.5521
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.5377	9.0000e-005	2.0000e-005	1.5456
Health Club	0.193421 / 0.038684	0.7140	6.3400e-003	1.6000e-004	0.9193
Hotel	5.46624 / 1.09325	20.1777	0.1792	4.4300e-003	25.9790
Quality Restaurant	4.45884 / 0.891768	16.4591	0.1462	3.6200e-003	21.1912
Recreational Swimming Pool	0.73073 / 0.146146	2.6974	0.0240	5.9000e-004	3.4729
Strip Mall	0.025185 / 0.005037	0.0930	8.3000e-004	2.0000e-005	0.1197
Unenclosed Parking with Elevator	0 / 0.704185	1.7318	1.0000e-004	2.0000e-005	1.7407
Total		**73.3538**	**0.6227**	**0.0154**	**93.5204**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	29.9433	0.2660	6.5800e-003	38.5521
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.5377	9.0000e-005	2.0000e-005	1.5456
Health Club	0.193421 / 0.038684	0.7140	6.3400e-003	1.6000e-004	0.9193
Hotel	5.46624 / 1.09325	20.1777	0.1792	4.4300e-003	25.9790
Quality Restaurant	4.45884 / 0.891768	16.4591	0.1462	3.6200e-003	21.1912
Recreational Swimming Pool	0.73073 / 0.146146	2.6974	0.0240	5.9000e-004	3.4729
Strip Mall	0.025185 / 0.005037	0.0930	8.3000e-004	2.0000e-005	0.1197
Unenclosed Parking with Elevator	0 / 0.704185	1.7318	1.0000e-004	2.0000e-005	1.7407
Total		**73.3538**	**0.6227**	**0.0154**	**93.5204**

6220 W Yucca Street Project - Operations (2030) - Electricity, Water

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	206.00	Space	0.10	89,222.00	0
Unenclosed Parking with Elevator	232.00	Space	0.10	100,483.00	0
City Park	0.60	Acre	0.10	18,535.00	0
Health Club	2.53	1000sqft	0.05	2,530.00	0
Hotel	136.00	Room	0.21	80,335.00	0
Quality Restaurant	9.05	1000sqft	0.10	9,050.00	0
Recreational Swimming Pool	4.84	1000sqft	0.10	4,840.00	0
Apartments High Rise	210.00	Dwelling Unit	0.35	242,285.00	426
Strip Mall	3.45	1000sqft	0.05	3,450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2030
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	444	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 50% RPS by 2030.

Land Use - Multi-Fam (210 DU); Hotel (136 rooms); Retail (3.45 ksf); Rest. (9.05 ksf); Pool (4.84 ksf); Fitness (2.53 ksf); Open Space (25.905 ksf); Parking (~232 above, ~206 below). Pop.=2.03/DU (Hollywood CPA, 426 people).

Energy Use - Adjusted for Title 24 (2016) compliance. According to CEC data, Title 24 (2016) standards are expected to result in energy savings of 5% non-residential and 28% residential over the 2013 standards.

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Energy Mitigation - Exceed Title 24 by 5% per PDF. Energy efficient appliances (e.g., ENERGY STAR qualified).

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	741.44	533.84
tblEnergyUse	LightingElect	0.00	2.50
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.20	3.04
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	0.00	3.04
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	2.36	2.24
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	6,328.91	4,556.82
tblEnergyUse	T24NG	13.71	13.02
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	0.00	13.02
tblEnergyUse	T24NG	1.16	1.10
tblLandUse	BuildingSpaceSquareFeet	82,400.00	89,222.00
tblLandUse	BuildingSpaceSquareFeet	92,800.00	100,483.00
tblLandUse	BuildingSpaceSquareFeet	0.00	18,535.00

tblLandUse	BuildingSpaceSquareFeet	197,472.00	80,335.00
tblLandUse	BuildingSpaceSquareFeet	0.00	4,840.00
tblLandUse	BuildingSpaceSquareFeet	210,000.00	242,285.00
tblLandUse	GreenSpaceSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	82,400.00	89,222.00
tblLandUse	LandUseSquareFeet	92,800.00	100,483.00
tblLandUse	LandUseSquareFeet	26,136.00	18,535.00
tblLandUse	LandUseSquareFeet	197,472.00	80,335.00
tblLandUse	LandUseSquareFeet	210,000.00	242,285.00
tblLandUse	LotAcreage	1.85	0.10
tblLandUse	LotAcreage	2.09	0.10
tblLandUse	LotAcreage	0.60	0.10
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	4.53	0.21
tblLandUse	LotAcreage	0.21	0.10
tblLandUse	LotAcreage	0.11	0.10
tblLandUse	LotAcreage	3.39	0.35
tblLandUse	LotAcreage	0.08	0.05
tblLandUse	Population	601.00	426.00
tblLandUse	RecSwimmingAreaSquareFeet	4,840.00	4,840.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	444
tblProjectCharacteristics	OperationalYear	2018	2030
tblWater	IndoorWaterUseRate	13,682,345.38	8,111,760.00
tblWater	IndoorWaterUseRate	149,632.15	193,421.00
tblWater	IndoorWaterUseRate	3,449,880.72	5,466,240.00
tblWater	IndoorWaterUseRate	2,746,980.10	4,458,840.00
tblWater	IndoorWaterUseRate	286,252.82	730,730.00
tblWater	IndoorWaterUseRate	255,550.20	25,185.00
tblWater	OutdoorWaterUseRate	8,625,826.44	1,622,352.00
tblWater	OutdoorWaterUseRate	714,888.81	0.00

tblWater	OutdoorWaterUseRate	0.00	625,268.00
tblWater	OutdoorWaterUseRate	91,710.03	38,684.00
tblWater	OutdoorWaterUseRate	383,320.08	1,093,248.00
tblWater	OutdoorWaterUseRate	175,339.16	891,768.00
tblWater	OutdoorWaterUseRate	175,445.28	146,146.00
tblWater	OutdoorWaterUseRate	156,627.54	5,037.00
tblWater	OutdoorWaterUseRate	0.00	704,185.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0324	0.2888	0.2049	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	886.4921	886.4921	0.0431	0.0135	891.6002
Water						0.0000	0.0000		0.0000	0.0000	6.0234	61.2596	67.2831	0.6227	0.0154	87.4496

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.0316	0.2817	0.1999	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	867.4827	867.4827	0.0422	0.0132	872.4810
Water						0.0000	0.0000		0.0000	0.0000	6.0234	61.2596	67.2831	0.6227	0.0154	87.4496

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	554.7064	554.7064	0.0362	7.5000e-003	557.8460
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	565.8286	565.8286	0.0370	7.6500e-003	569.0312

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.97144e+006	0.0106	0.0908	0.0387	5.8000e-004		7.3400e-003	7.3400e-003		7.3400e-003	7.3400e-003	0.0000	105.2037	105.2037	2.0200e-003	1.9300e-003	105.8288
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	44199.1	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3586	2.3586	5.0000e-005	4.0000e-005	2.3727
Hotel	1.85413e+006	0.0100	0.0909	0.0764	5.5000e-004		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	98.9435	98.9435	1.9000e-003	1.8100e-003	99.5315
Quality Restaurant	2.07073e+006	0.0112	0.1015	0.0853	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.5021	110.5021	2.1200e-003	2.0300e-003	111.1587
Recreational Swimming Pool	63016.8	3.4000e-004	3.0900e-003	2.5900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3628	3.3628	6.0000e-005	6.0000e-005	3.3828
Strip Mall	5485.5	3.0000e-005	2.7000e-004	2.3000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2927	0.2927	1.0000e-005	1.0000e-005	0.2945
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0324**	**0.2888**	**0.2049**	**1.7700e-003**		**0.0224**	**0.0224**		**0.0224**	**0.0224**	**0.0000**	**320.6634**	**320.6634**	**6.1600e-003**	**5.8800e-003**	**322.5690**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.9236e+006	0.0104	0.0886	0.0377	5.7000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	102.6504	102.6504	1.9700e-003	1.8800e-003	103.2604
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	42552.1	2.3000e-004	2.0900e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2707	2.2707	4.0000e-005	4.0000e-005	2.2842
Hotel	1.77773e+006	9.5900e-003	0.0871	0.0732	5.2000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	94.8666	94.8666	1.8200e-003	1.7400e-003	95.4304
Quality Restaurant	2.05216e+006	0.0111	0.1006	0.0845	6.0000e-004		7.6500e-003	7.6500e-003		7.6500e-003	7.6500e-003	0.0000	109.5113	109.5113	2.1000e-003	2.0100e-003	110.1621
Recreational Swimming Pool	59866	3.2000e-004	2.9300e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1947	3.1947	6.0000e-005	6.0000e-005	3.2137
Strip Mall	5295.75	3.0000e-005	2.6000e-004	2.2000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2826	0.2826	1.0000e-005	1.0000e-005	0.2843
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0316**	**0.2817**	**0.1999**	**1.7200e-003**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**0.0000**	**312.7763**	**312.7763**	**6.0000e-003**	**5.7400e-003**	**314.6350**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	829628	167.0830	0.0109	2.2600e-003	168.0286
City Park	46337.5	9.3321	6.1000e-004	1.3000e-004	9.3850
Enclosed Parking with Elevator	571913	115.1804	7.5200e-003	1.5600e-003	115.8323
Health Club	27905.9	5.6201	3.7000e-004	8.0000e-005	5.6519
Hotel	604923	121.8284	7.9600e-003	1.6500e-003	122.5179
Quality Restaurant	397838	80.1226	5.2300e-003	1.0800e-003	80.5761
Recreational Swimming Pool	14713.6	2.9633	1.9000e-004	4.0000e-005	2.9800
Strip Mall	45988.5	9.2619	6.0000e-004	1.3000e-004	9.3143
Unenclosed Parking with Elevator	270299	54.4369	3.5600e-003	7.4000e-004	54.7450
Total		**565.8286**	**0.0370**	**7.6700e-003**	**569.0312**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	805868	162.2978	0.0106	2.1900e-003	163.2164
City Park	46337.5	9.3321	6.1000e-004	1.3000e-004	9.3850
Enclosed Parking with Elevator	555318	111.8382	7.3000e-003	1.5100e-003	112.4712
Health Club	27622.5	5.5630	3.6000e-004	8.0000e-005	5.5945
Hotel	594680	119.7656	7.8200e-003	1.6200e-003	120.4434
Quality Restaurant	394182	79.3863	5.1900e-003	1.0700e-003	79.8356
Recreational Swimming Pool	14713.6	2.9633	1.9000e-004	4.0000e-005	2.9800
Strip Mall	45300.2	9.1232	6.0000e-004	1.2000e-004	9.1749
Unenclosed Parking with Elevator	270299	54.4369	3.5600e-003	7.4000e-004	54.7450
Total		**554.7064**	**0.0362**	**7.5000e-003**	**557.8460**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	67.2831	0.6227	0.0154	87.4496
Unmitigated	67.2831	0.6227	0.0154	87.4496

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	27.4755	0.2660	6.5800e-003	36.0844
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.3990	9.0000e-,005	2.0000e-005	1.4070
Health Club	0.193421 / 0.038684	0.6551	6.3400e-003	1.6000e-004	0.8604
Hotel	5.46624 / 1.09325	18.5148	0.1792	4.4300e-003	24.3160
Quality Restaurant	4.45884 / 0.891768	15.1026	0.1462	3.6200e-003	19.8347
Recreational Swimming Pool	0.73073 / 0.146146	2.4751	0.0240	5.9000e-004	3.2506
Strip Mall	0.025185 / 0.005037	0.0853	8.3000e-004	2.0000e-005	0.1120
Unenclosed Parking with Elevator	0 / 0.704185	1.5756	1.0000e-004	2.0000e-005	1.5845
Total		**67.2831**	**0.6227**	**0.0154**	**87.4496**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.11176 / 1.62235	27.4755	0.2660	6.5800e-003	36.0844
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0.625268	1.3990	9.0000e-005	2.0000e-005	1.4070
Health Club	0.193421 / 0.038684	0.6551	6.3400e-003	1.6000e-004	0.8604
Hotel	5.46624 / 1.09325	18.5148	0.1792	4.4300e-003	24.3160
Quality Restaurant	4.45884 / 0.891768	15.1026	0.1462	3.6200e-003	19.8347
Recreational Swimming Pool	0.73073 / 0.146146	2.4751	0.0240	5.9000e-004	3.2506
Strip Mall	0.025185 / 0.005037	0.0853	8.3000e-004	2.0000e-005	0.1120
Unenclosed Parking with Elevator	0 / 0.704185	1.5756	1.0000e-004	2.0000e-005	1.5845
Total		**67.2831**	**0.6227**	**0.0154**	**87.4496**

6220 West Yucca Street Mixed Use Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Solar Photovoltaic Panel Electricity Demand

Land Use [a]	Electricity Demand kilowatt-hours/year		Reduced Demand with Solar Photovoltaics	
Apartments High Rise	805,868.0	→	758,390.0	94.11%
City Park	46,337.5			
Enclosed Parking with Elevator	555,318.0			
Health Club	27,622.5			
Hotel	594,680.0			
Quality Restaurant	394,182.0			
Recreational Swimming Pool	14,713.6			
Strip Mall	45,300.2			
Unenclosed Parking with Elevator	270,299.0			
	2,754,321			
Solar 30 kW Photovoltaics [b]	47,478			
Percent of Project Total	1.72%			

Notes:

a. Project electricity demand estimated from CalEEMod (2016.3.1)

b. Electricity provided by 30 kW Photovoltaics based on data from U.S. Department of Energy, National Renewable Energy Laboratory, PVWatts Calculator, http://pvwatts.nrel.gov/pvwatts.php.

NREL

RESULTS

47,478 kWh per Year *

PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at http://sam.nrel.gov) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

Disclaimer: The PVWatts® Model ("Model") is provided by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC ("Alliance") for the U.S. Department Of Energy ("DOE") and may be used for any purpose whatsoever.

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The energy output range is based on analysis of 30 years of historical weather data for nearby , and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

Month	Solar Radiation (kWh / m² / day)	AC Energy (kWh)	Energy Value ($)
January	3.93	2,915	371
February	4.91	3,291	419
March	5.45	4,029	513
April	6.14	4,356	555
May	6.56	4,781	609
June	6.64	4,666	594
July	6.92	4,984	635
August	6.88	4,926	628
September	5.71	3,955	504
October	5.07	3,681	469
November	4.32	3,058	390
December	3.88	2,835	361
Annual	**5.53**	**47,477**	**$ 6,048**

Location and Station Identification

Requested Location	6220 Yucca Street, Los Angeles, CA
Weather Data Source	(TMY2) LOS ANGELES, CA 13 mi
Latitude	33.93° N
Longitude	118.4° W

PV System Specifications *(Commercial)*

DC System Size	30 kW
Module Type	Standard
Array Type	Fixed (open rack)
Array Tilt	20°
Array Azimuth	180°
System Losses	14%
Inverter Efficiency	96%
DC to AC Size Ratio	1.1

Economics

Average Cost of Electricity Purchased from Utility	0.13 $/kWh

Performance Metrics

Capacity Factor	18.1%

Yucca Argyle Project
Draft Environmental Impact Report
Greenhouse Gas Assessment

Project Operational Emissions - Emergency Generator

Standby Emergency Generator			
Rating:	250	kW	*(kW, HP rating reflect total sitewide need)*
	335	HP	*(conversion from kW to hp)*
Load Factor:	0.74		*(based on CalEEMod Generator Set Load Factor)*
Engine Emissions Tier:	Tier 4		*(compliance with CARB diesel regulations)*
Number of Units:	1		*(kW, HP rating reflect total sitewide need)*
Operating Hours per Unit:	2	hours/day	*(testing/maintenance)*
	50	hours/year	*(testing/maintenance, Regulatory Limit per SCAQMD Rule 1470)*

Emergency Generator Emissions

Units	Greenhouse Gases [1]	
	CO_2	CO_2e
g/HP-hr	526.17	531.48
lbs/hr	287.56	290.47
lbs/day	575.13	580.94
lbs/yr	14,378.20	14,523.43
tons/yr	7.19	7.26
metric tons/yr	6.52	6.59

Notes:

1. Emission factor for CO_2: U.S. Environmental Protection Agency, *AP-42 Compilation of Air Pollutant Emission Factors* , Fifth Edition, Section 3.4, Table 3.4-1. Emissions of GHGs assume 99% of the CO_2e emissions occur as CO_2, which is typical for off-road diesel engines.

Source: ESA PCR, 2017

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Draft Environmental Impact Report
Greenhouse Gas Assessment

	GHG Emission Factors (metric tons/mile)			
Year	CO2	CH4	N2O	CO2e
	1	*25*	*298*	
2015	4.83E-04	3.12E-08	-	4.84E-04
2018	4.51E-04	2.39E-08	-	4.52E-04
2021	4.17E-04	1.90E-08	-	4.18E-04
2022	4.06E-04	1.78E-08	-	4.06E-04
2023	3.92E-04	1.66E-08	-	3.93E-04
2024	3.82E-04	1.58E-08	-	3.83E-04
2025	3.71E-04	1.50E-08	-	3.71E-04
2026	3.61E-04	1.42E-08	-	3.61E-04
2027	3.52E-04	1.36E-08	-	3.52E-04
2028	3.45E-04	1.31E-08	-	3.45E-04
2029	3.38E-04	1.26E-08	-	3.38E-04
2030	3.32E-04	1.22E-08	-	3.32E-04
2031	3.27E-04	1.18E-08	-	3.28E-04
2032	3.23E-04	1.15E-08	-	3.23E-04
2033	3.19E-04	1.12E-08	-	3.19E-04
2034	3.16E-04	1.10E-08	-	3.16E-04
2035	3.13E-04	1.08E-08	-	3.14E-04
2036	3.11E-04	1.06E-08	-	3.12E-04
2037	3.10E-04	1.04E-08	-	3.10E-04
2038	3.09E-04	1.03E-08	-	3.09E-04
2039	3.08E-04	1.02E-08	-	3.08E-04
2040	3.07E-04	1.01E-08	-	3.07E-04
2041	3.07E-04	1.00E-08	-	3.07E-04
2042	3.06E-04	9.94E-09	-	3.07E-04
2043	3.06E-04	9.89E-09	-	3.06E-04
2044	3.06E-04	9.82E-09	-	3.07E-04
2045	3.06E-04	9.76E-09	-	3.07E-04
2046	3.07E-04	9.65E-09	-	3.07E-04
2047	3.07E-04	9.61E-09	-	3.07E-04
2048	3.07E-04	9.59E-09	-	3.08E-04
2049	3.08E-04	9.56E-09	-	3.08E-04
2050	3.08E-04	9.53E-09	-	3.09E-04

Source: EMFAC2014, South Coast Air Basin (Los Angeles County), "Emissions" (or "Burden") mode.

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Draft Environmental Impact Report
Greenhouse Gas Assessment

Scenario	Year	VMT/year	GHG Emission Factors (metric tons/year) CO2	CH4	N2O	CO2e
			1	*25*	*298*	
Project	2021	8,950,895	3,736.75	0.17	-	3,741
	2022	8,950,895	3,632.10	0.16	-	3,636
	2023	8,950,895	3,511.03	0.15	-	3,515
	2024	8,950,895	3,422.04	0.14	-	3,426
	2025	8,950,895	3,317.63	0.13	-	3,321
	2026	8,950,895	3,230.00	0.13	-	3,233
	2027	8,950,895	3,152.14	0.12	-	3,155
	2028	8,950,895	3,084.30	0.12	-	3,087
	2029	8,950,895	3,024.64	0.11	-	3,027
	2030	8,950,895	2,972.82	0.11	-	2,976
	2031	8,950,895	2,930.32	0.11	-	2,933
	2032	8,950,895	2,890.81	0.10	-	2,893
	2033	8,950,895	2,856.75	0.10	-	2,859
	2034	8,950,895	2,827.92	0.10	-	2,830
	2035	8,950,895	2,804.20	0.10	-	2,807
	2036	8,950,895	2,787.01	0.09	-	2,789
	2037	8,950,895	2,772.49	0.09	-	2,775
	2038	8,950,895	2,761.57	0.09	-	2,764
	2039	8,950,895	2,753.52	0.09	-	2,756
	2040	8,950,895	2,747.89	0.09	-	2,750
	2041	8,950,895	2,743.52	0.09	-	2,746
	2042	8,950,895	2,741.51	0.09	-	2,744
	2043	8,950,895	2,740.99	0.09	-	2,743
	2044	8,950,895	2,741.37	0.09	-	2,744
	2045	8,950,895	2,742.46	0.09	-	2,745
	2046	8,950,895	2,744.71	0.09	-	2,747
	2047	8,950,895	2,747.67	0.09	-	2,750
	2048	8,950,895	2,751.15	0.09	-	2,753
	2049	8,950,895	2,755.08	0.09	-	2,757
	2050	8,950,895	2,760.49	0.09	-	2,763

Source: ESA 2017

Appendix C

California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017

ESA

Attachment 2
Statewide Emission Factors for Use With AB 900 Projects

Mobile-Source Emissions

Project applicants under AB 900 may use default GHG emission factors (EFs) from the California Emissions Estimator Model (CalEEMod). However, ARB acknowledges that CalEEMod does not contain the latest mobile-source emissions reductions from State and federal regulations. If an AB 900 project applicant does not wish to use CalEEMod EFs, and the project's mobile sources include "all vehicle classifications," the EFs provided via the EMFAC2014 Web Database provide a quick and easy way to access commonly used emission rates data. The Web Database contains daily emissions and emission rates data for all areas, calendar years and seasons.

See https://www.arb.ca.gov/emfac/2014/.

Electricity Emissions

An AB 900 project applicant may use the local electric utility provider's EFs and electricity intensities for today's electric supply generation.

If an applicant would like to use an EF that represents the State's Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 pounds CO_2/MWh may be used[2]. This 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. It represents a generation supply mix of 67 percent natural gas-fueled combined cycle power plants, and 33 percent renewable energy. ARB believes this marginal profile represents new generation plans in any electric utility territory in California.

[2] LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm, based on analysis with CA-GREET model.

February 21, 2017

Lisa Webber
Deputy Director of Planning
City of Los Angeles
200 N. Spring Street
Los Angeles, CA 90012

RE: Yucca Argyle Project: Acknowledgement of Obligations under Public Resources Code§ 21183(d), (e), and (f)

Dear Ms. Webber:

As you are aware, Riley Realty LP ("Applicant") has applied to the California Governor to request certification of the Yucca Argyle project (the "Project") as a Leadership Project subjected to streamlined environmental review pursuant to the Jobs and Economic Improvement through Environmental Leadership Act of 2011 (the "Act"), California Public Resource Code§ 21178 et seq as amended by SB 743 and SB 734. By this letter, Applicant acknowledges and agrees to its obligations under the Act as set forth at Public Resources Code§ 21183(d), (e), and (f).

As required by Public Resources Code§ 21183(d), Applicant agrees that all mitigation measures required pursuant to CEQA to certify the Project under the Act shall be conditions of approval, and those conditions will be fully enforceable by the City of Los Angeles (the "City") or another agency designated by the City. Applicant agrees that all environmental mitigation measures required to certify the Project under the Act will be monitored and enforced by the City for the life of the obligation.

As required by Public Resources Code§ 21183(e), Applicant agrees to pay the costs of the Court of Appeal in hearing and deciding any case, including payment of the costs for the appointment of a special master if deemed appropriate by the court, in a form and manner specified by the Judicial Council, as provided in the Rules of Court adopted by the Judicial Council pursuant to the Act.

As required by Public Resources Code§ 21183(f), Applicant agrees to pay the costs of preparing the administrative record for the Project, in a form and manner specified by the City, concurrent with review and consideration of the Project pursuant to CEQA and the Act.

Sincerely,

RILEY REALTY, L.P.,
a California limited partnership

By: Champion Enterprises, Inc.,
a Nevada corporation, General Partner

By: Champion Holdings, Inc.,
a California corporation, General Partner

By: _____
Robert D. Champion, President

Acknowledged and agreed by:

_____
Lisa Webber
City of Los Angeles – Deputy Director of Planning

6. Letter to Joint Budget Committee

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

July 27, 2017

Honorable Holly Mitchell, Chair
Honorable Phil Ting, Vice Chair
Joint Legislative Budget Committee
1020 N Street, Room 553
Sacramento, CA 95814

Re. Yucca Argyle, AB 900 Certified Project

Dear Senator Mitchell and Assemblyman Ting:

Governor Brown has determined that the Yucca Argyle Project in the City of Los Angeles is eligible for streamlined judicial review under the Jobs and Economic Improvement Act (AB 900), Public Resources Code section 21184. Pursuant to that provision, I am forwarding the Governor's determination to the Joint Legislative Budget Committee.

If you have any questions or comments, please do not hesitate to contact me or my staff.

Sincerely,



Ken Alex
Director

cc. Peggy Collins

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

7. Joint Budget Committee Concurrence Letter

Joint Legislative Budget Committee

CHAIR
HOLLY J. MITCHELL

VICE CHAIR
PHILIP Y. TING

SENATE
PATRICIA C. BATES
JEAN FULLER
RICARDO LARA
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MELISSA A. MELENDEZ
JAY OBERNOLTE
SHIRLEY N. WEBER

GOVERNMENT CODE SECTIONS 9140-9143

CALIFORNIA LEGISLATURE

LEGISLATIVE ANALYST
MAC TAYLOR

925 L STREET, SUITE 1000
SACRAMENTO, CALIFORNIA 95814
(916) 445-4656

August 18, 2017

Ken Alex, Director
Governor's Office of Planning and Research
State of California
1400 Tenth Street
Sacramento, CA 95814

Dear Mr. Alex:

On July 27, 2017, you informed me that Governor Brown has determined that the Yucca Argyle project in the City of Los Angeles is eligible for streamlined judicial review under Chapter 354 of 2011 (AB 900, Buchanan).

Assembly Bill 900 was intended to encourage California's economic recovery by providing a streamlined California Environmental Quality Act review process for construction projects that qualify as environmental leadership development projects (ELDPs). Among other requirements, ELDPs must make substantial financial investments within our state, create new high wage and highly skilled jobs, and not result in any net additional greenhouse gas emissions, as determined by the California Air Resources Board.

Based on the information you have provided, and a subsequent review by the Legislative Analyst's Office, I concur with the Governor's determination that the project meets the AB 900 criteria set forth in Public Resources Code section 21178 et seq.

Sincerely,

HJMitchell

Holly J. Mitchell
Chair

cc: Members of the Joint Legislative Budget Committee