

City of Los Angeles

Department of City Planning • Environmental Analysis Section
City Hall • 200 N. Spring Street, Room 750 • Los Angeles, CA 90012



INITIAL STUDY

CENTRAL CITY COMMUNITY PLAN AREA

340 S. Hill St. Equity Residential Mixed-Use Project

Case Number: ENV-2015-982-EIR

Project Location: 338, 340, 342, 348, 352, 356 South Hill Street and 311, 321 West 4th Street, Los Angeles, CA 90013

Council District: 14 – Jose Huizar

Project Description: The Project includes the demolition of an 850 square foot restaurant and 109 space surface parking lot and development of the site with 428 multi-family residential units including 213 studio units, 89 1-bedroom units, and 126 2-bedroom units. The 428 residential units include 320 market rate units and 108 set-aside Restricted Affordable units, including 22 very-low-income housing units and one of the following: 1) 10 percent of the total number of units for Low Income households; 2) 15 percent of the total number of units for Moderate Income households; or 3) 20 percent of the total number of units for Workforce Income households. The Project would include up to 5,610 square feet of commercial uses, including an approximately 2,980 square foot leasing office and up to 2,630 square feet of neighborhood-serving retail land uses. The Project would provide approximately 47,151 square feet of open space, including (but not limited to) 21,000 square feet of private open space, 4,683 square feet of residential amenities, a 13,798-square-foot pool court, and a 7,670-square-foot sky deck and lounge. Vehicle access to the site would be provided from 4th Street, Hill Street, and through a rear alley accessible from 4th Street. The Project would include a two and a half level subterranean parking garage and a seven story parking podium. The parking podium design would be subject to the City's Downtown Design Guide, specifically the parking and access guidelines, as well as the project design features included in the City Planning Commission Advisory Notice Relative to Above-Grade Parking.¹ The Project requires approval of the following: Pursuant to LAMC Section 16.05, Approval of Site Plan Review Findings and Haul Route.

APPLICANT:

EQR 4th and Hill LP
6100 Center Drive, Suite 750
Los Angeles, CA 90045

PREPARED BY:

CAJA Environmental Services
11990 San Vicente Boulevard
Los Angeles, CA 90049

ON BEHALF OF:

The City of Los Angeles
Department of City Planning
Major Projects Section

¹ City of Los Angeles Advisory Notice Relative to Above-Grade Parking, October 27, 2016.

February 2017

TABLE OF CONTENTS

I.	INTRODUCTION.....	I-1
II.	PROJECT DESCRIPTION	II-1
III.	CEQA INITIAL STUDY AND CHECKLIST	III-1
IV.	ENVIRONMENTAL IMPACT ANALYSIS.....	IV-1
	1. AESTHETICS.....	IV-1
	2. AGRICULTURE AND FORESTRY RESOURCES	IV-4
	3. AIR QUALITY	IV-5
	4. BIOLOGICAL RESOURCES	IV-7
	5. CULTURAL RESOURCES	IV-10
	6. GEOLOGY AND SOILS	IV-12
	7. GREENHOUSE GAS EMISSIONS.....	IV-16
	8. HAZARDS AND HAZARDOUS MATERIALS	IV-18
	9. HYDROLOGY AND WATER QUALITY	IV-22
	10. LAND USE AND PLANNING.....	IV-27
	11. MINERAL RESOURCES	IV-28
	12. NOISE.....	IV-29
	13. POPULATION AND HOUSING.....	IV-31
	14. PUBLIC SERVICES	IV-32
	15. RECREATION	IV-34
	16. TRANSPORTATION AND TRAFFIC.....	IV-34
	17. TRIBAL CULTURAL RESOURCES.....	IV-36
	18. UTILITIES AND SERVICE SYSTEM.....	IV-37
	19. MANDATORY FINDINGS OF SIGNIFICANCE	IV-40
V.	PREPARERS OF THE INITIAL STUDY AND PERSONS CONSULTED	V-1

List of Figures

Figure II-1 Project Site Regional and Local Map	II-2
Figure II-2 Aerial Photo	II-3
Figure II-3 Views of the Project Site	II-4
Figure II-4 Existing Zoning	II-5
Figure II-5 Existing Land Use Designation	II-6
Figure II-6 Existing Land Uses in the Project Area, A	II-8
Figure II-7 Existing Land Uses in the Project Site Area, B	II-9
Figure II-8 Plot Plan	II-10
Figure II-9 Basement 1	II-11
Figure II-10 Basement 2	II-12
Figure II-11 Basement 3	II-13
Figure II-12 1st Floor	II-14
Figure II-13 2nd Floor	II-15
Figure II-14 3rd and 4 th Floor	II-16
Figure II-15 5th and 7 th Floor	II-17
Figure II-16 8th Floor	II-18
Figure II-17 9th Floor	II-19
Figure II-18 10th through 32 nd Floor	II-20
Figure II-19 33rd Floor	II-21
Figure II-20 Roof Plan	II-22
Figure II-21 Building Section A	II-23
Figure II-22 Building Section B	II-24
Figure II-23 Building Section C	II-25
Figure II-24 Building Section D	II-26
Figure II-25 South Elevation	II-27
Figure II-26 West Elevation	II-28
Figure II-27 North Elevation	II-29
Figure II-28 East Elevation	II-30

Figure II-29 Landscape Plan Ground Level.....	II-31
Figure II-30 Landscape Plan Podium Level	II-32
Figure II-31 Landscape Plan Roof Deck Level	II-33
Figure II-32 Building Rendering East.....	II-34
Figure II-33 Building Rendering Metro Plaza	II-35
Figure II-34 Building Rendering North	II-36

List of Tables

Table II-1 Project Units.....	II-39
Table II-2 Project Parking.....	II-41
Table II-3 Open Space Required of and provided by the Project	II-42

APPENDICES

Appendix A:	Zoning Information File No. 2452
Appendix B:	Tree Report
Appendix C:	Cultural Resources Documentation
Appendix D:	Geotechnical Report

I. INTRODUCTION

Introduction

The subject of this Initial Study is the demolition of an 850 square foot restaurant and 109-space surface parking lot and the construction of a 33-story mixed-use building comprised of 428 multi-family residential units and a maximum of 5,610 square feet of commercial land uses (leasing office/neighborhood-serving retail), in the Central City Community Plan Area of the City of Los Angeles (the “City”). The Project Applicant is EQR 4th and Hill LP. A more detailed description of the Project is contained in Section II (Project Description). The City of Los Angeles Department of City Planning is the Lead Agency under the California Environmental Quality Act (CEQA).

Project Information

Project Title: Equity Residential Mixed-Use Project

Project Location: 338, 340, 342, 348, 352, 356 South Hill Street and 311, 321 West 4th Street, Los Angeles, CA 90013

Lead Agency: City of Los Angeles Department of City Planning
200 North Spring Street, Room 750
Los Angeles, CA 90012

Organization of Initial Study

This Initial Study is organized into six sections as follows:

Introduction: This section provides introductory information such as the Project title, the Project Applicant, and the Lead Agency for the Project.

Project Description: This section provides a detailed description of the environmental setting and the Project, including Project characteristics and environmental setting.

Initial Study Checklist: This section contains the completed Initial Study Checklist.

Environmental Impact Analysis: Each environmental issue identified in the Initial Study Checklist contains an assessment and discussion of impacts associated with each subject area. Environmental issues that are determined to be potentially significant impacts will be addressed in detail in the EIR.

Preparers of Initial Study and Persons Consulted: This section provides a list of City personnel, other governmental agencies, and consultant team members that participated in the preparation of the Initial Study.

II. PROJECT DESCRIPTION

ENVIRONMENTAL SETTING

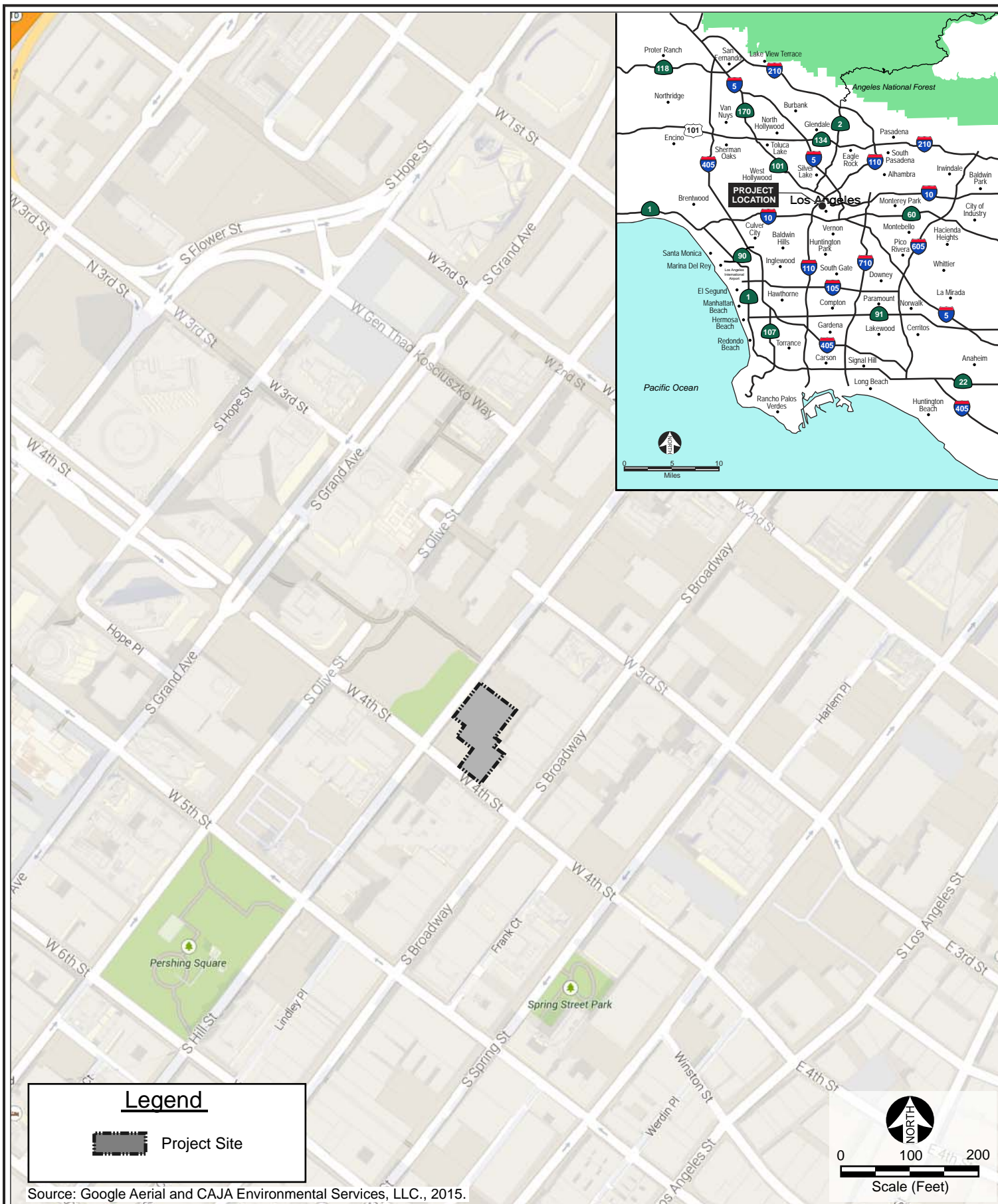
Project Site

The Project site is located in the Central City Community Plan Area of the City of Los Angeles (the “City”) (refer to Figures II-1 and II-2). The Project site is made up of six parcels (Assessor Parcel Numbers (APNs) 5149-015-024, 5149-015-027, 5149-015-030, 5149-015-004, 5149-015-005, and 5149-015-013) and is located at 340 South Hill Street.¹ Additionally, the Project site includes the airspace starting at approximately 20 feet above the Metro subway portal located at the northeast corner of 4th Street and Hill Street. The Project site is bound by Hill Street to the west, a restaurant building to the north, commercial/retail buildings to the east, and 4th Street and a Metropolitan Transportation Authority (Metro) Red Line subway portal to the south. The total area of the Project site is approximately 32,467 square feet. The Project site is currently developed with a 109 space surface parking lot and an 850 square foot restaurant. Views of the Project site are shown in Figure II-3.

Land Use Designation & Zoning

The Project Applicant proposes to develop a mixed-use project that is consistent with the existing C2 zone and Regional Center Commercial Central City Community Plan land use designation (refer to Figures II-4 and II-5). The “D” or Development Limitation restricts the floor area ratio (FAR) to six times the buildable area of the site. However, the Downtown Housing Incentive Ordinance allows a floor area bonus for projects that voluntarily provide a prescribed percentage of affordable housing units. Consistent with the Downtown Housing Incentive Ordinance, the Project would include set-aside Restricted Affordable units, including 22 very-low-income housing units and one of the following: 1) 10 percent of the total number of units for Low Income households; 2) 15 percent of the total number of units for Moderate Income households; or 3) 20 percent of the total number of units for Workforce Income households. Thus, pursuant to the Downtown Housing Incentive Ordinance, the Project’s proposed FAR is 9.6:1.

¹ Additional addresses affiliated with the Project site include: 338-360 South Hill Street and 311-321 West 4th Street.





Legend



Project Site

Source: Google Maps, 2015.



Photo A: View toward the northeast of the Project site from Hill Street.

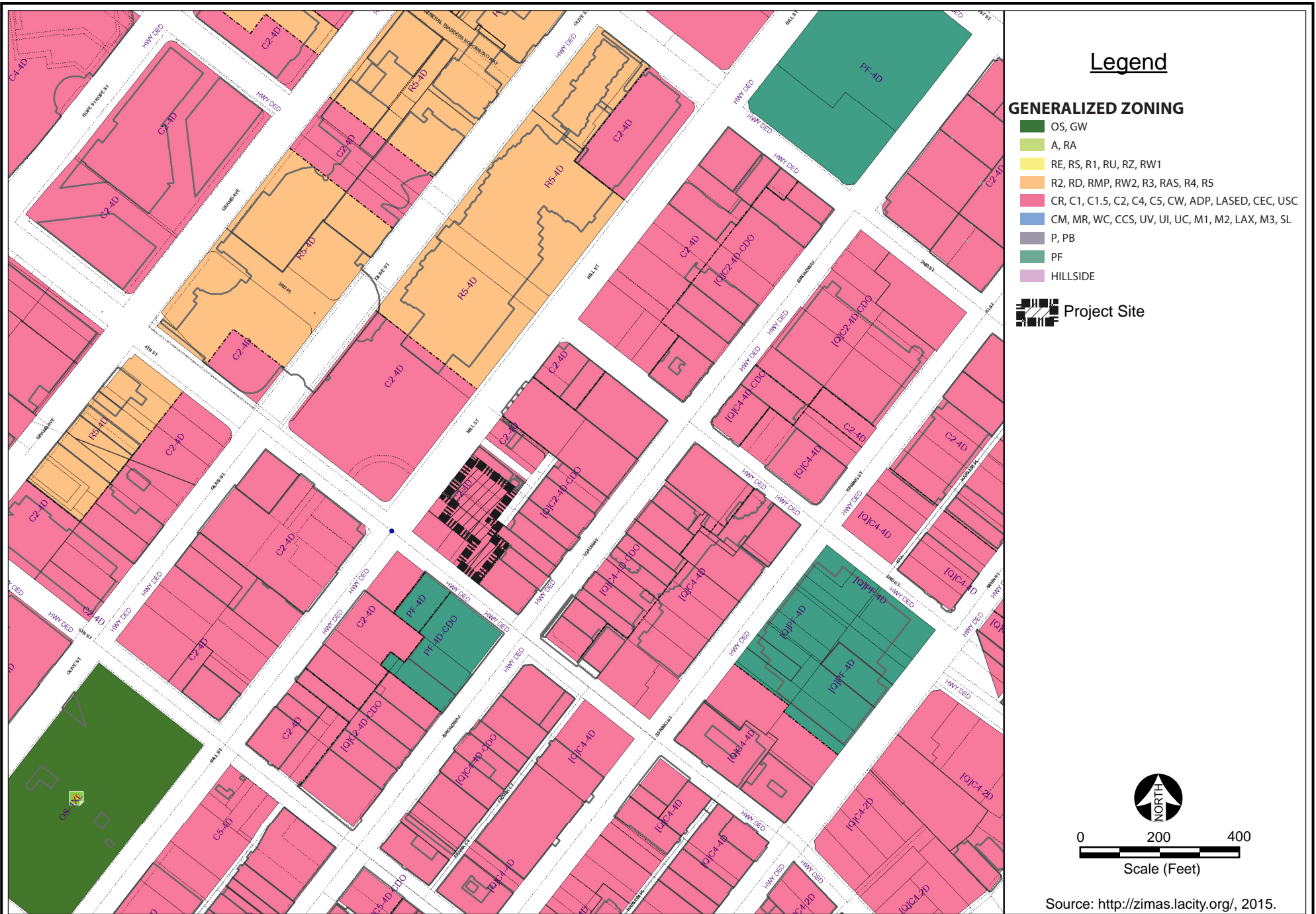


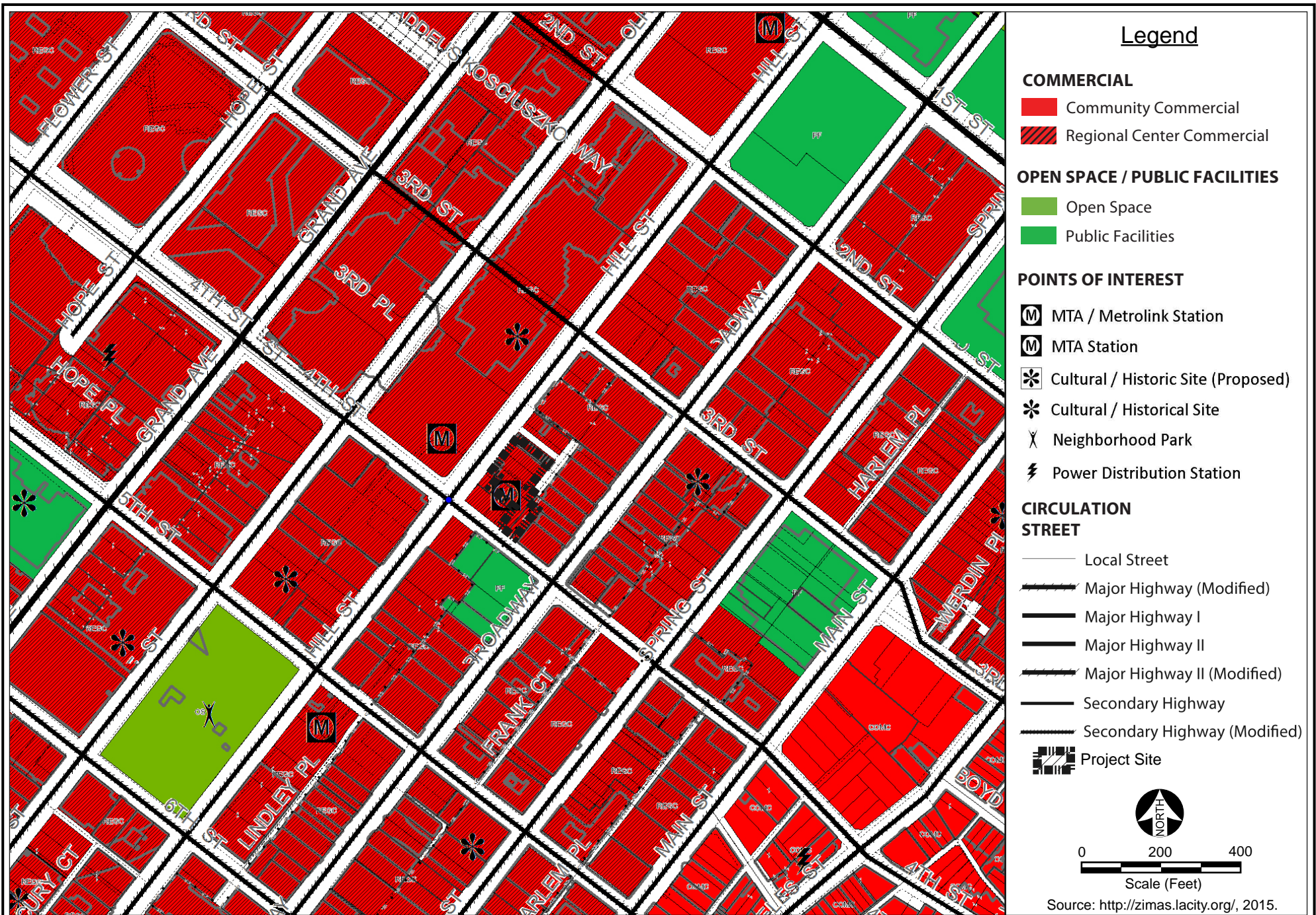
Photo B: View of the Project site toward the northeast from the intersection of Hill Street and 4th Street.



Photo C: View toward the east from Hill Street of the existing restaurant on the Project site.

Source: CAJA Environmental Services LLC, 2015.





Description of Surrounding Area

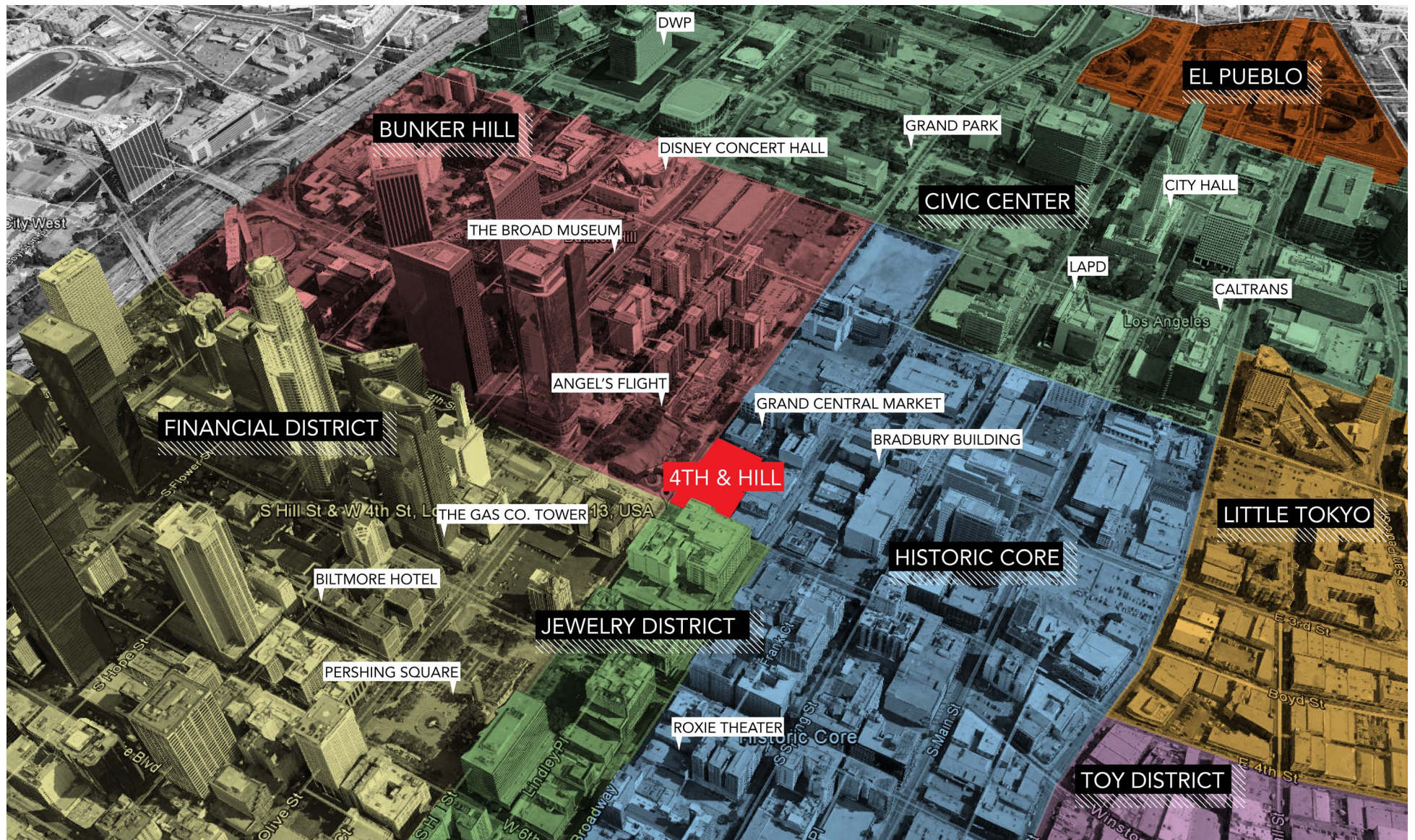
The Project site is located in an urban and developed area of the City. Existing land uses surrounding the Project site include a dense development of transit, commercial, and high-density multi-family land uses. The Project site is immediately adjacent to the Metro Red Line's Pershing Square subway station northeast portal. A single-story building occupied by a restaurant abuts the northern boundary of the Project Site. Several buildings ranging from one to six stories are located along Broadway, one block east of the Project site. A portion of the land to the south of the Project site is designated and zoned as Public Facilities. All other land surrounding the Project site is designated and zoned Commercial, similar to the Project site (refer to Figures II-4 and II-5, respectively). Specific land uses in the greater Project area are shown on Figures II-6 and II-7.

PROJECT CHARACTERISTICS

The Project is a 33-story mixed-use infill development consisting of up to 5,610 square feet of commercial land uses (including an approximately 2,980-square-foot leasing office and up to 2,630 square feet of neighborhood-serving retail land uses), 428 multi-family residential units, 47,151 square feet of open space/recreation uses, residential vehicle parking, and short and long-term bicycle parking. The 33-story building would be 405 feet high; the architectural beacon would reach the maximum building height of 410 feet. Project plans are shown on Figures II-8 through II-34.

Design and Architectural Features

The design of the mixed-use building would be modern. The courtyard areas, located on floors 9 and 33 are situated to maximize access to city views (refer to Figures II-17 and II-19). The ground-floor commercial uses would be constructed out of large cardinal glass panes with exterior reflectance of 27 percent and 36 percent to create a transparent interior-exterior relationship. Glass used in building facades shall minimize glare, by minimizing the use of glass with mirror coatings. Consistent with applicable energy and building code requirements, including Section 140.3 of the California Energy Code as may be amended, glass with coatings required to meet the Energy Code requirements shall be permitted.



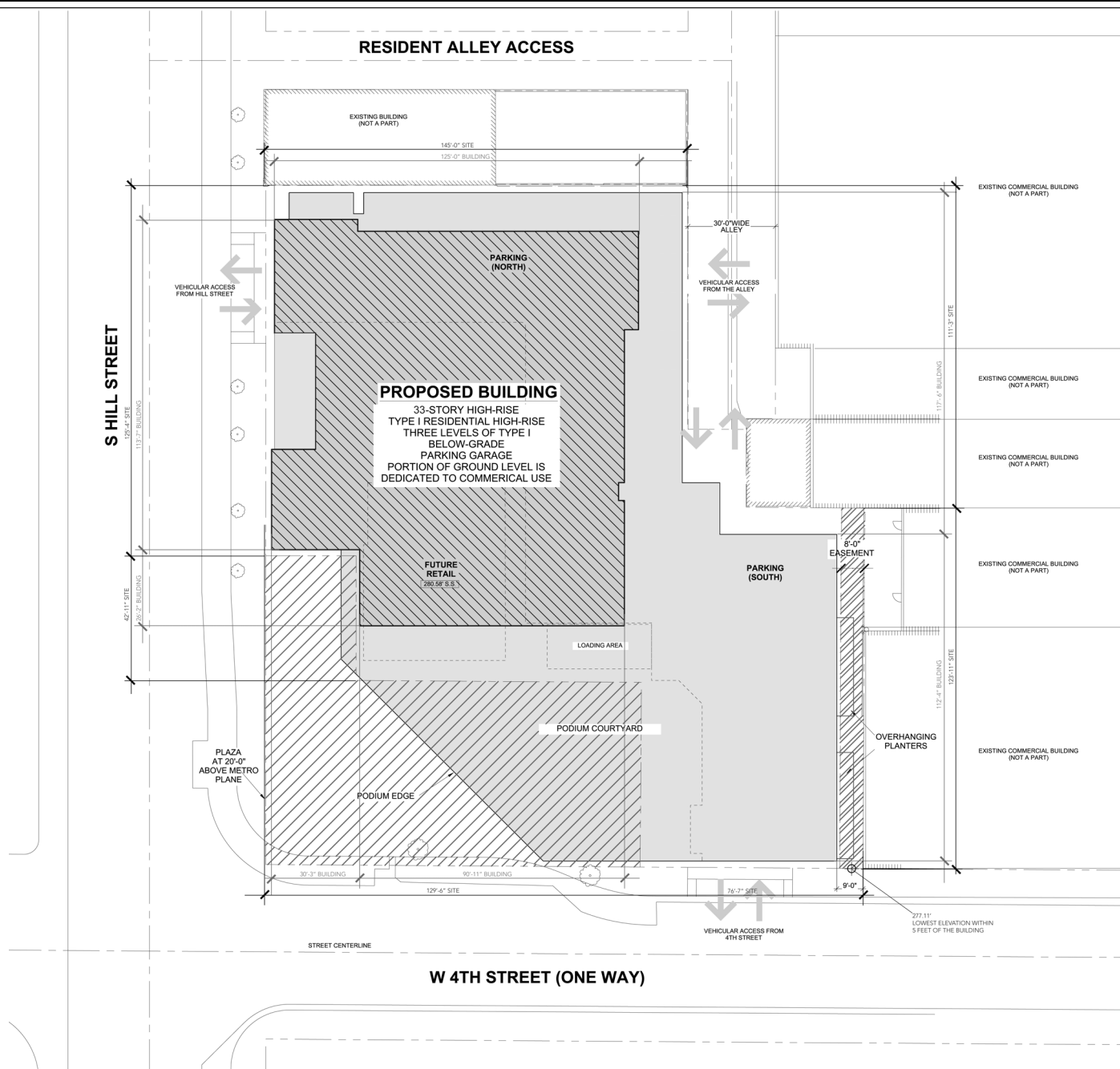
Source: TCA Architects, February 26, 2015.



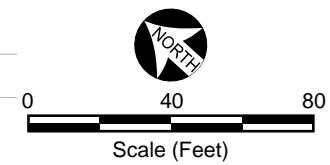


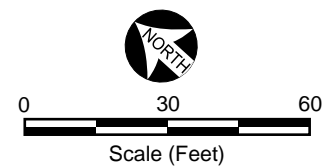
Source: TCA Architects, February 26, 2015.





Source: TCA Architects, December 3, 2015.





CAJA Environmental Services, LLC

Figure II-9
Basement 1

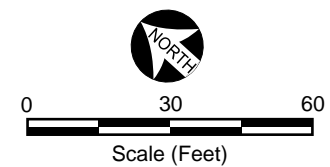
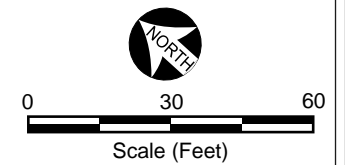
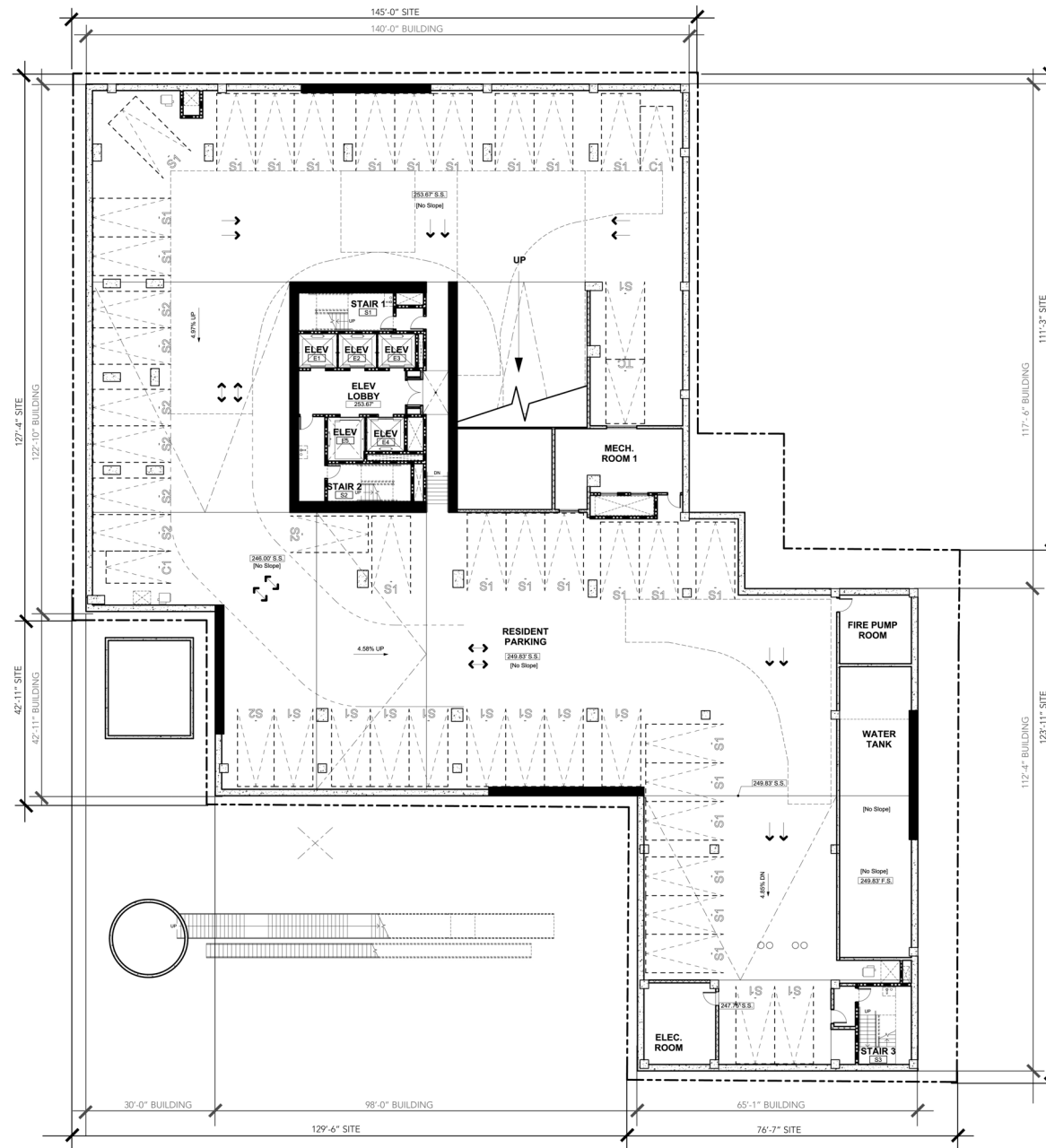
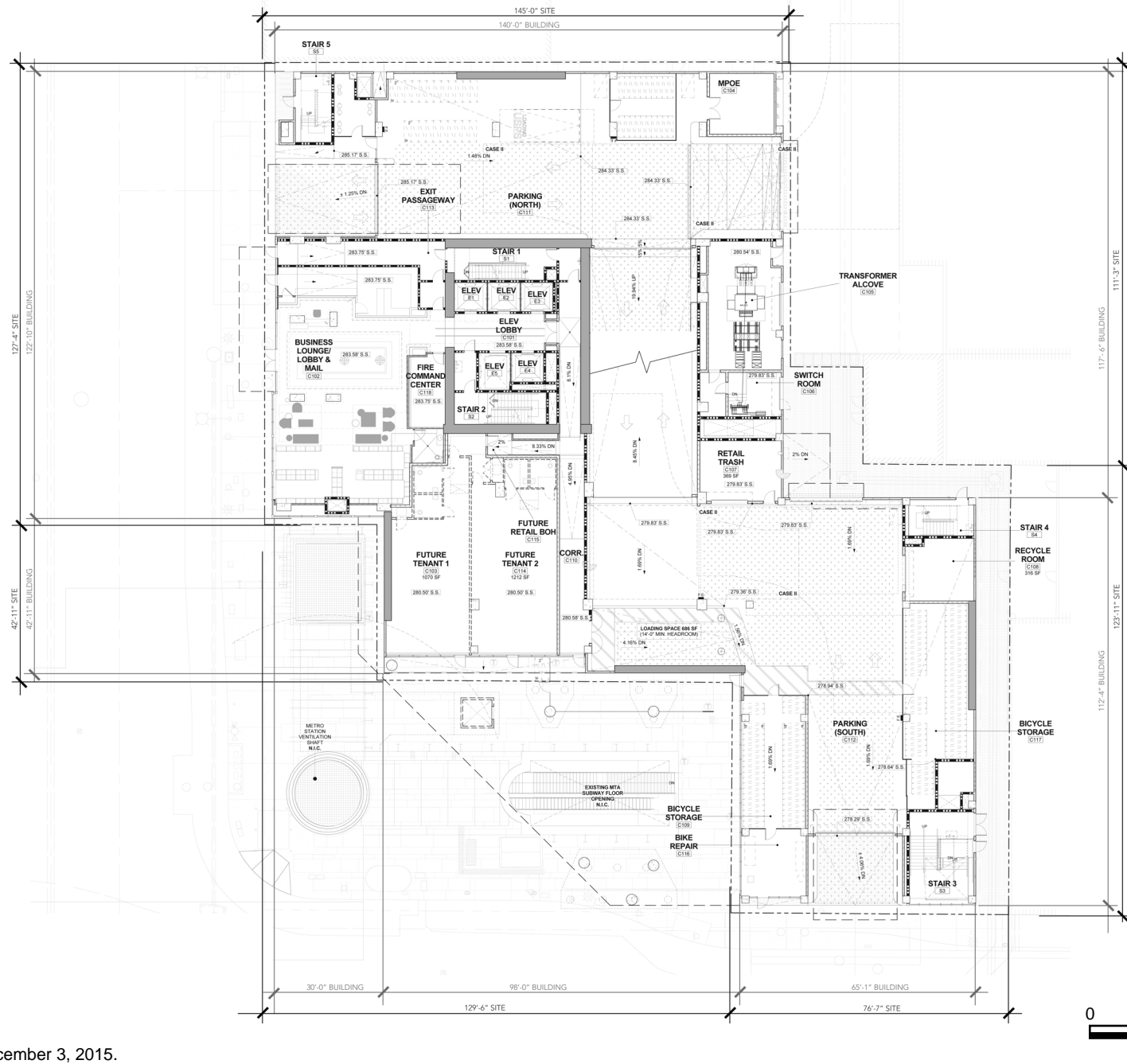


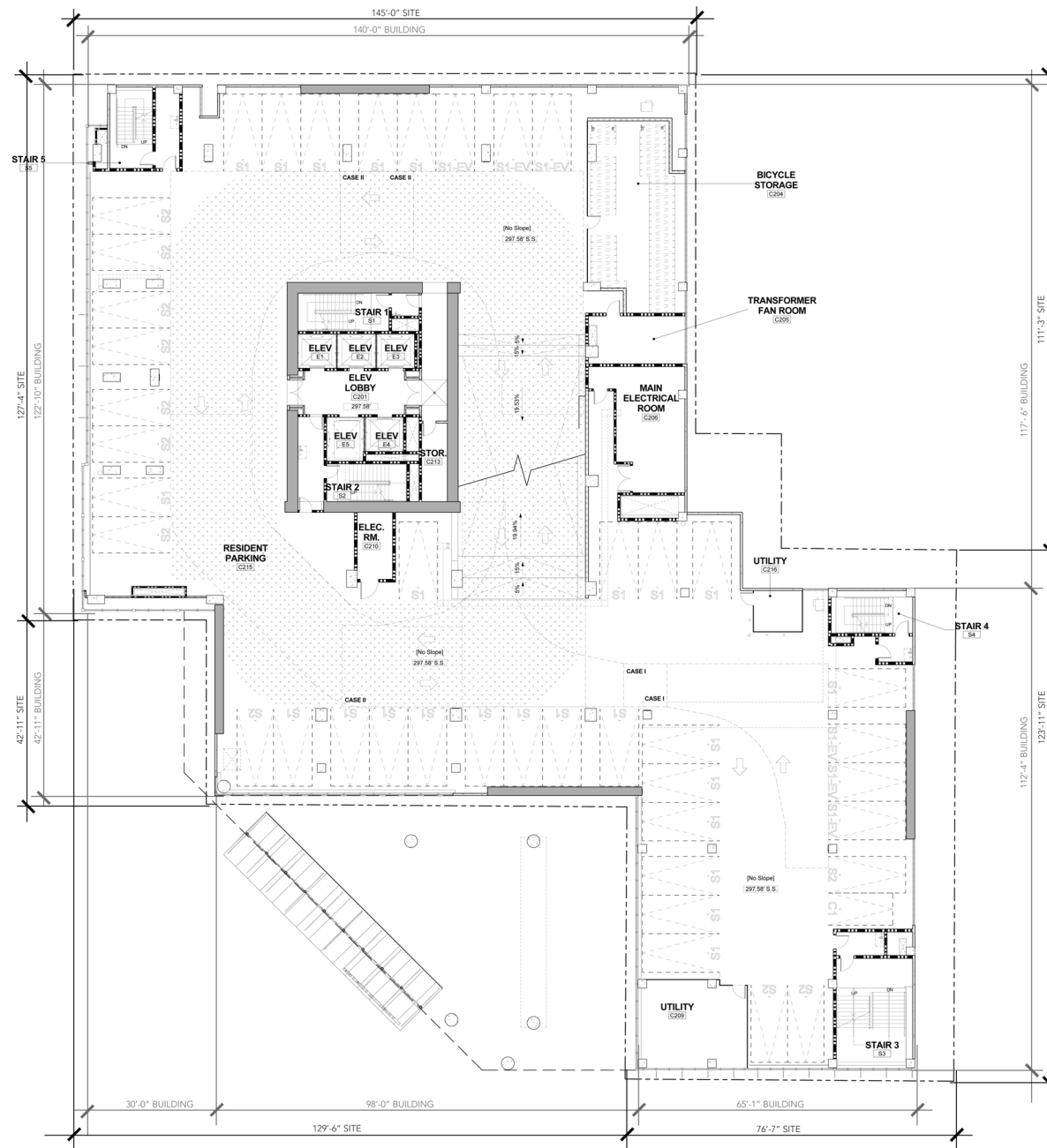
Figure II-10
Basement 2



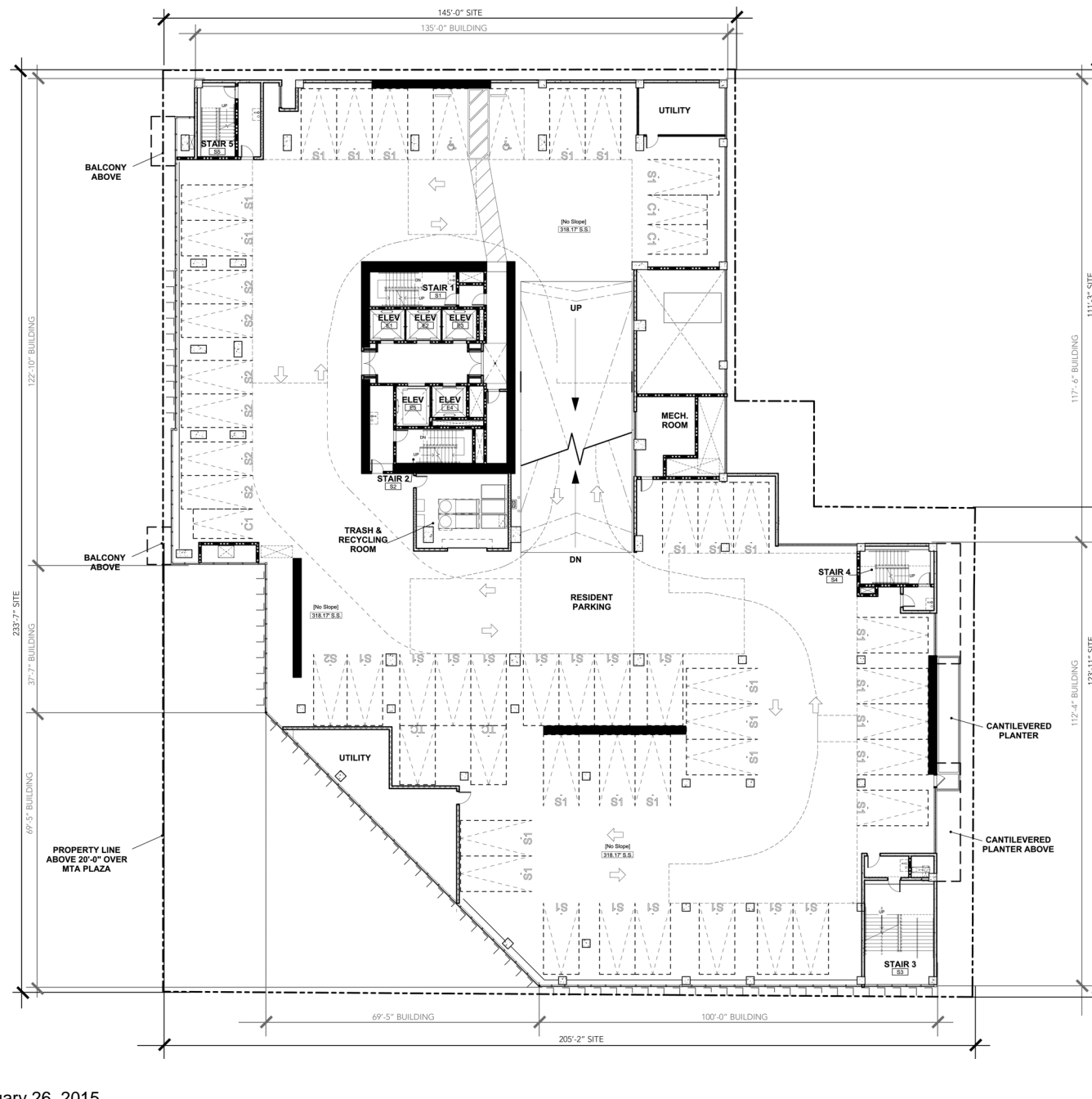
Source: TCA Architects, February 26, 2015.



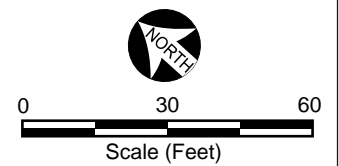
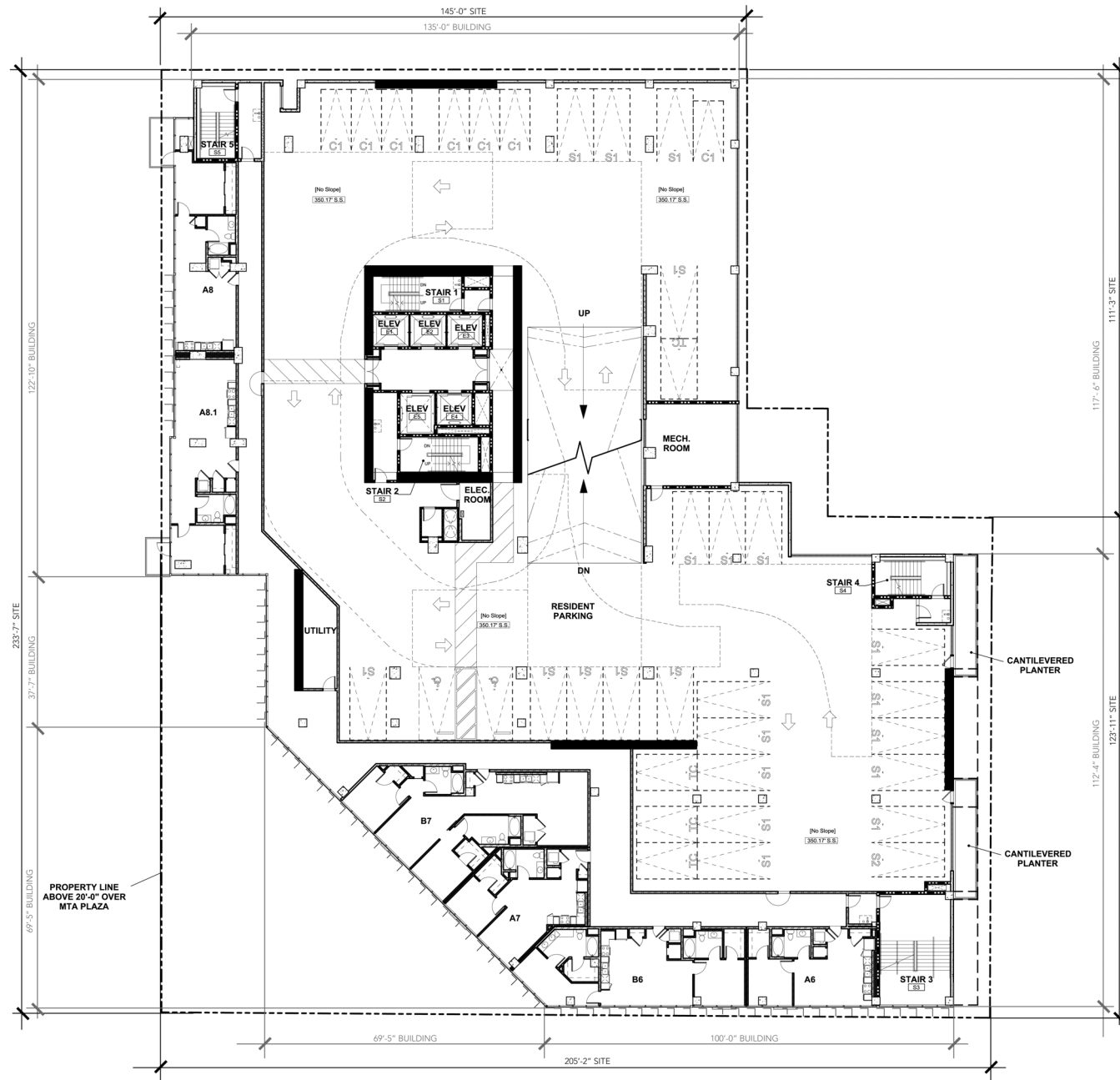
Source: TCA Architects, December 3, 2015.



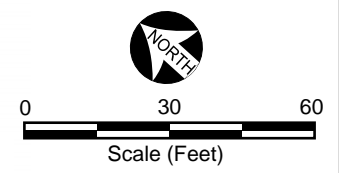
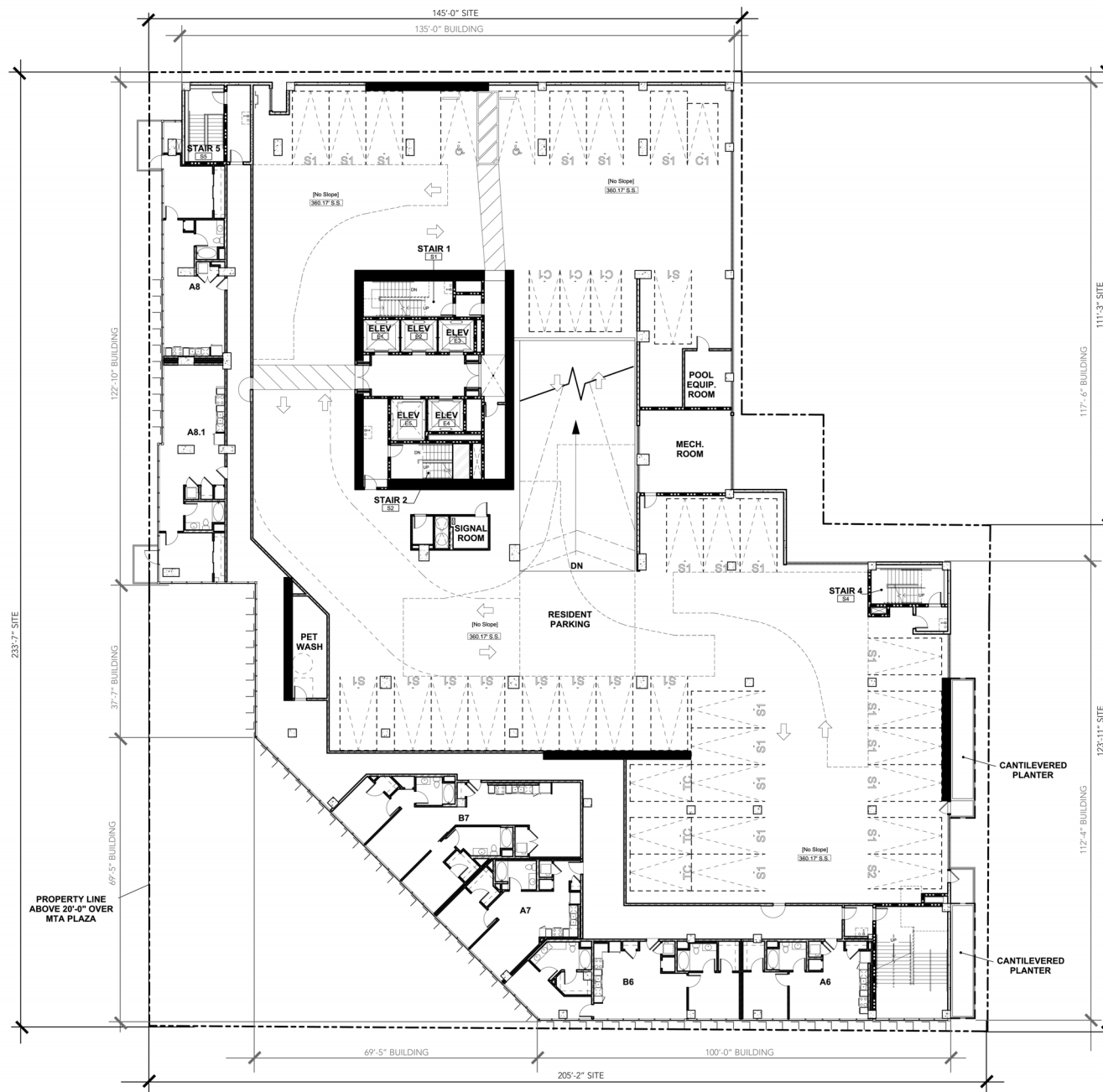
Source: TCA Architects, December 3, 2015.



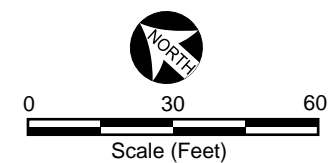
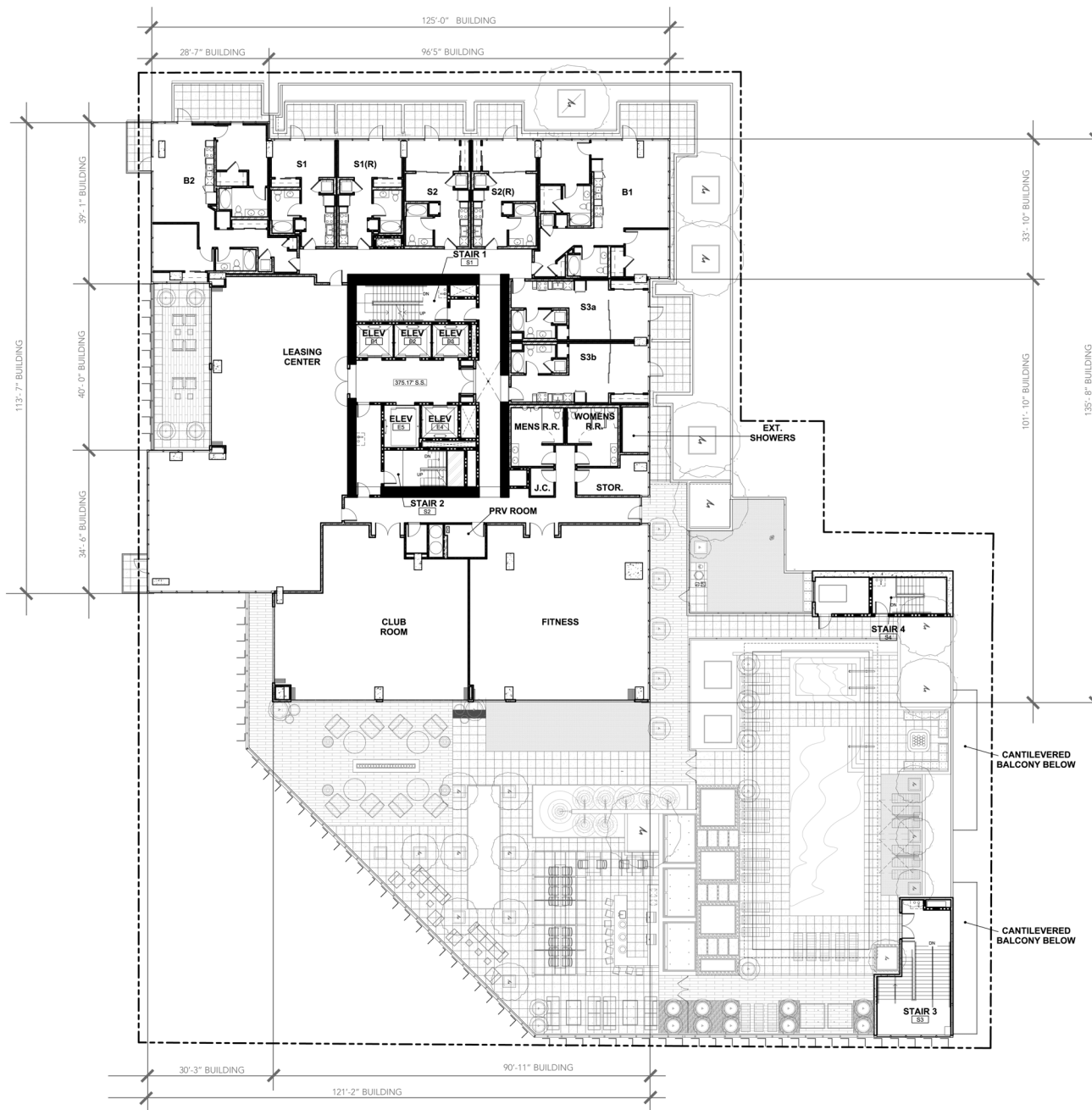
Source: TCA Architects, February 26, 2015.



Source: TCA Architects, February 26, 2015.

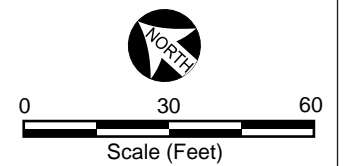
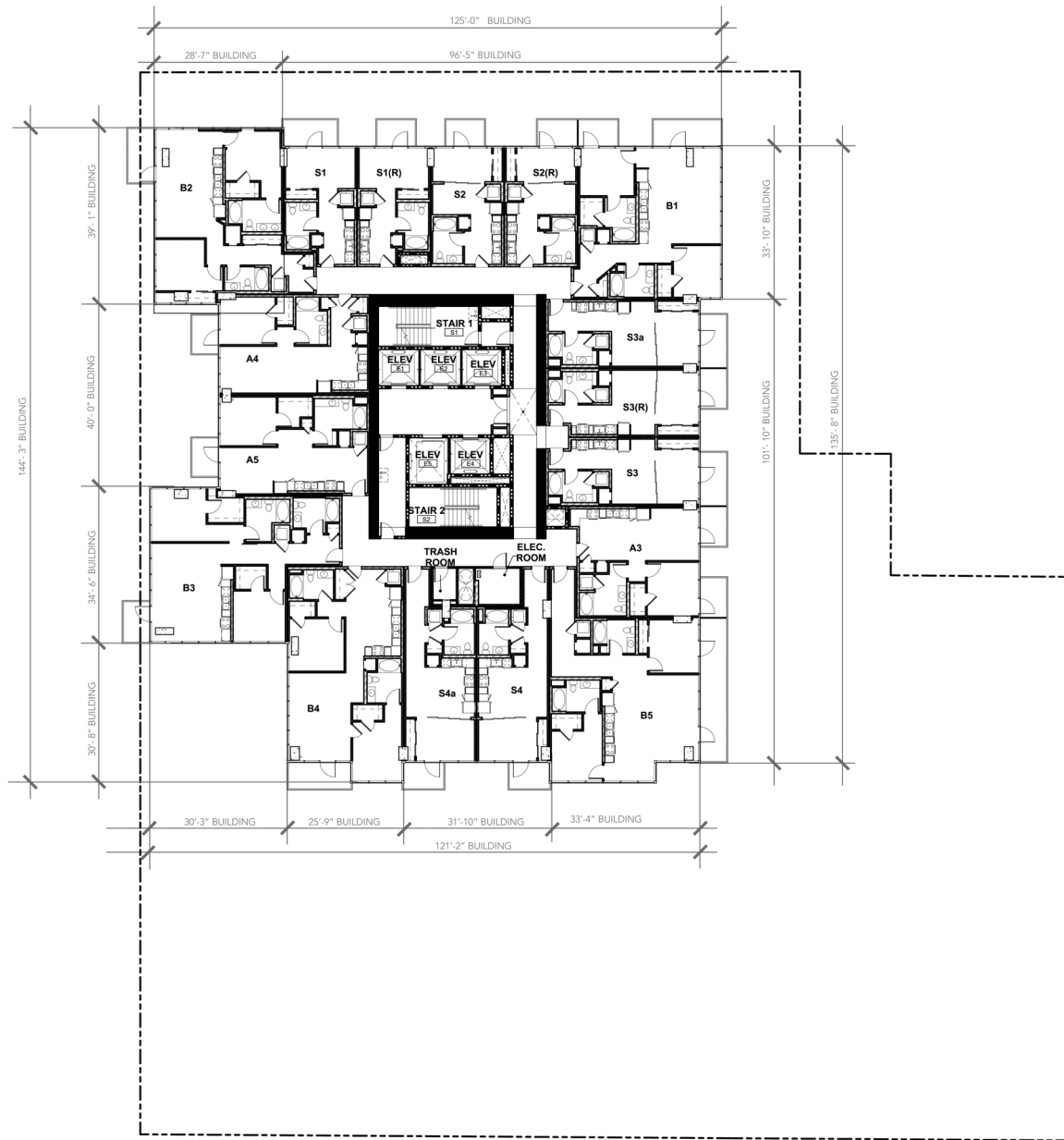


Source: TCA Architects, February 26, 2015.

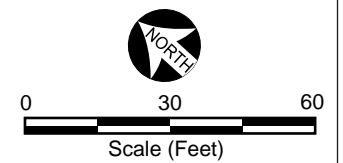
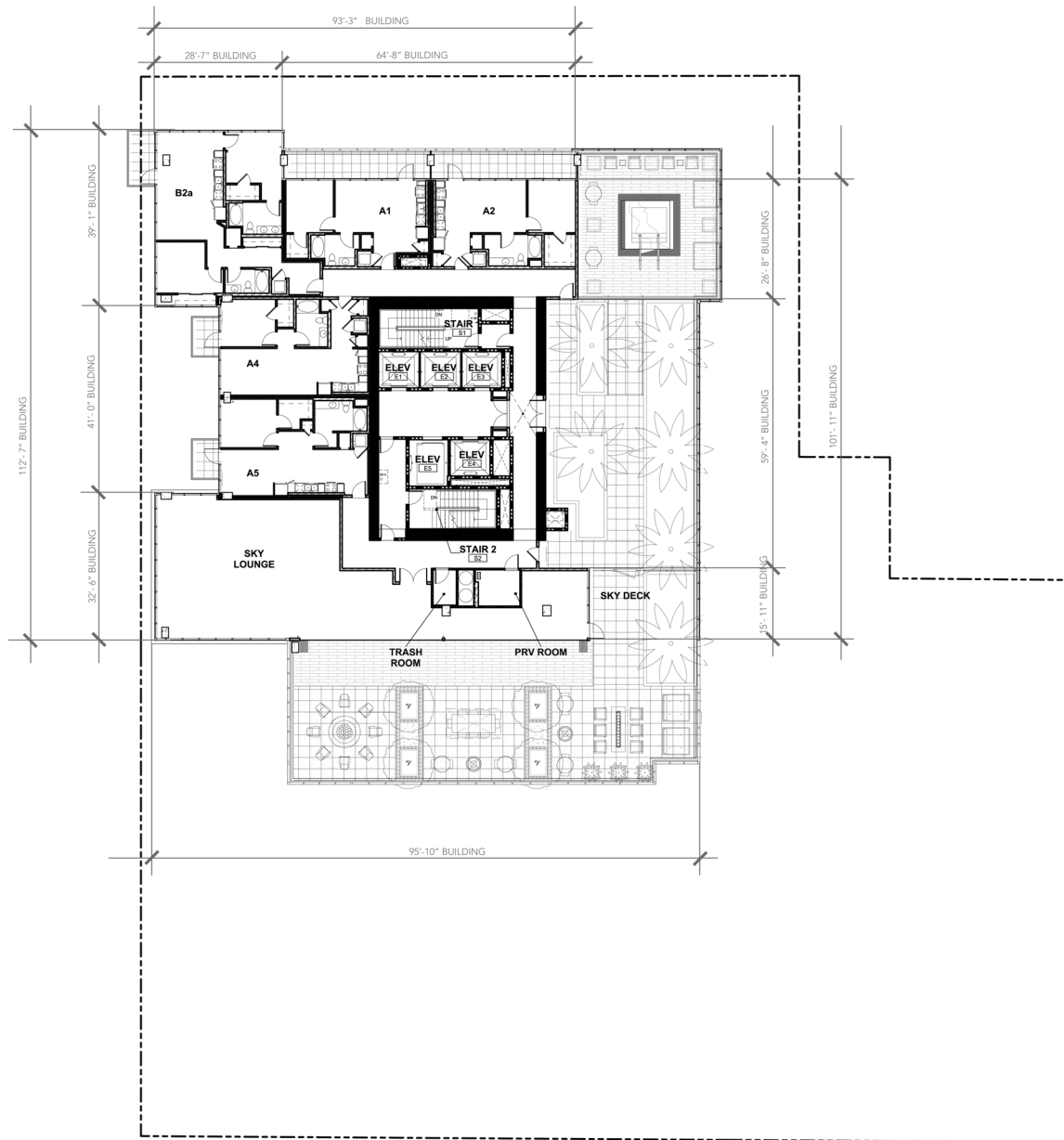


Source: TCA Architects, February 26, 2015.

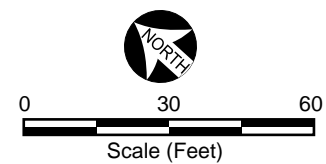
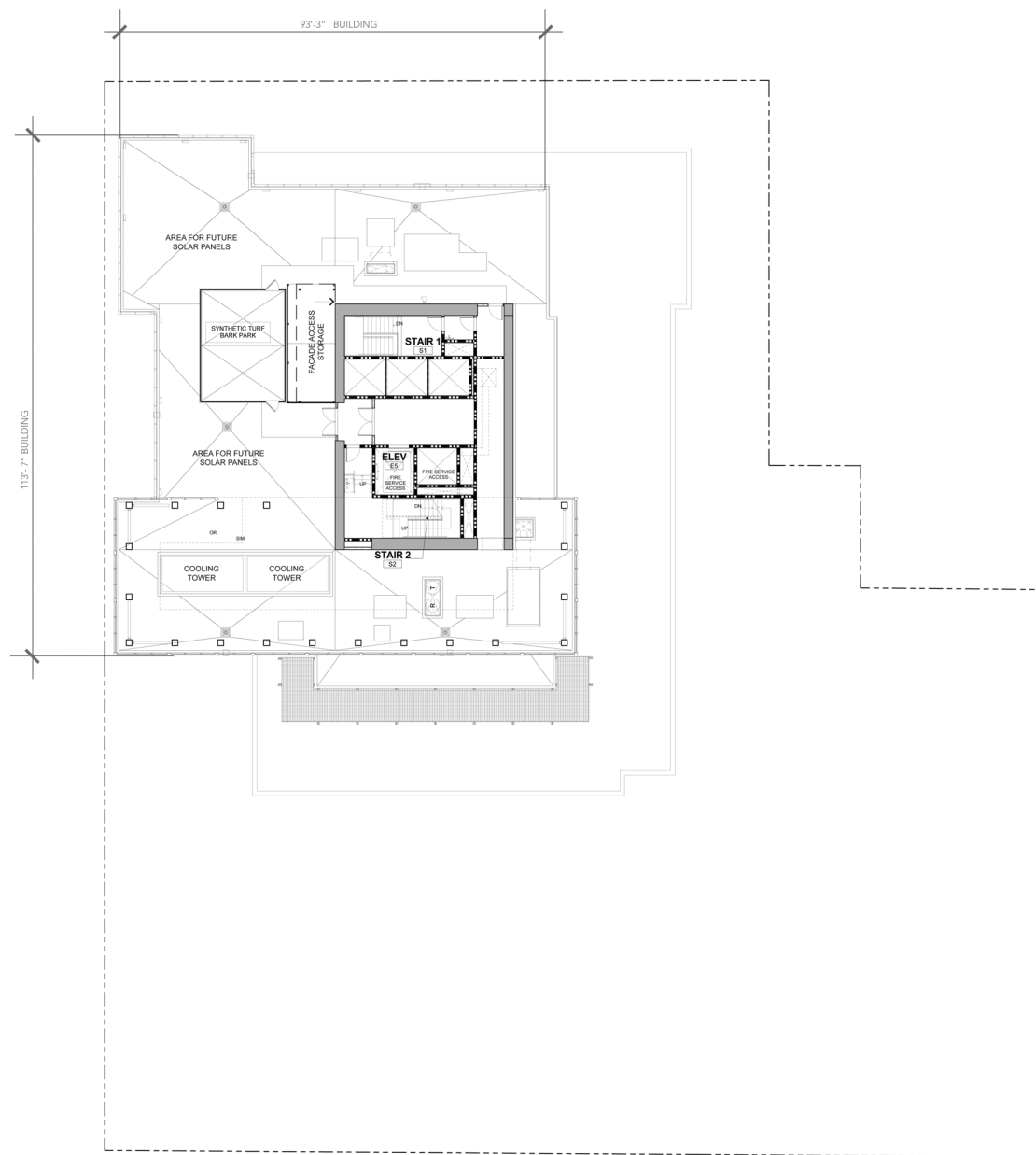
Figure II-17
9th Floor



Source: TCA Architects, February 26, 2015.



Source: TCA Architects, February 26, 2015.



Source: TCA Architects, December 3, 2015.

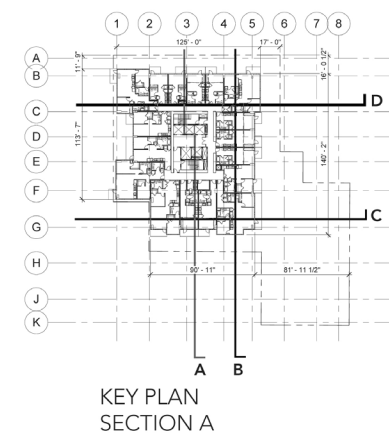
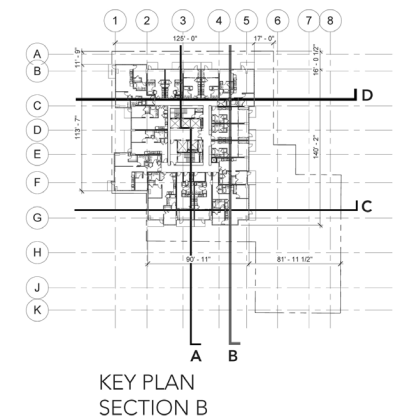
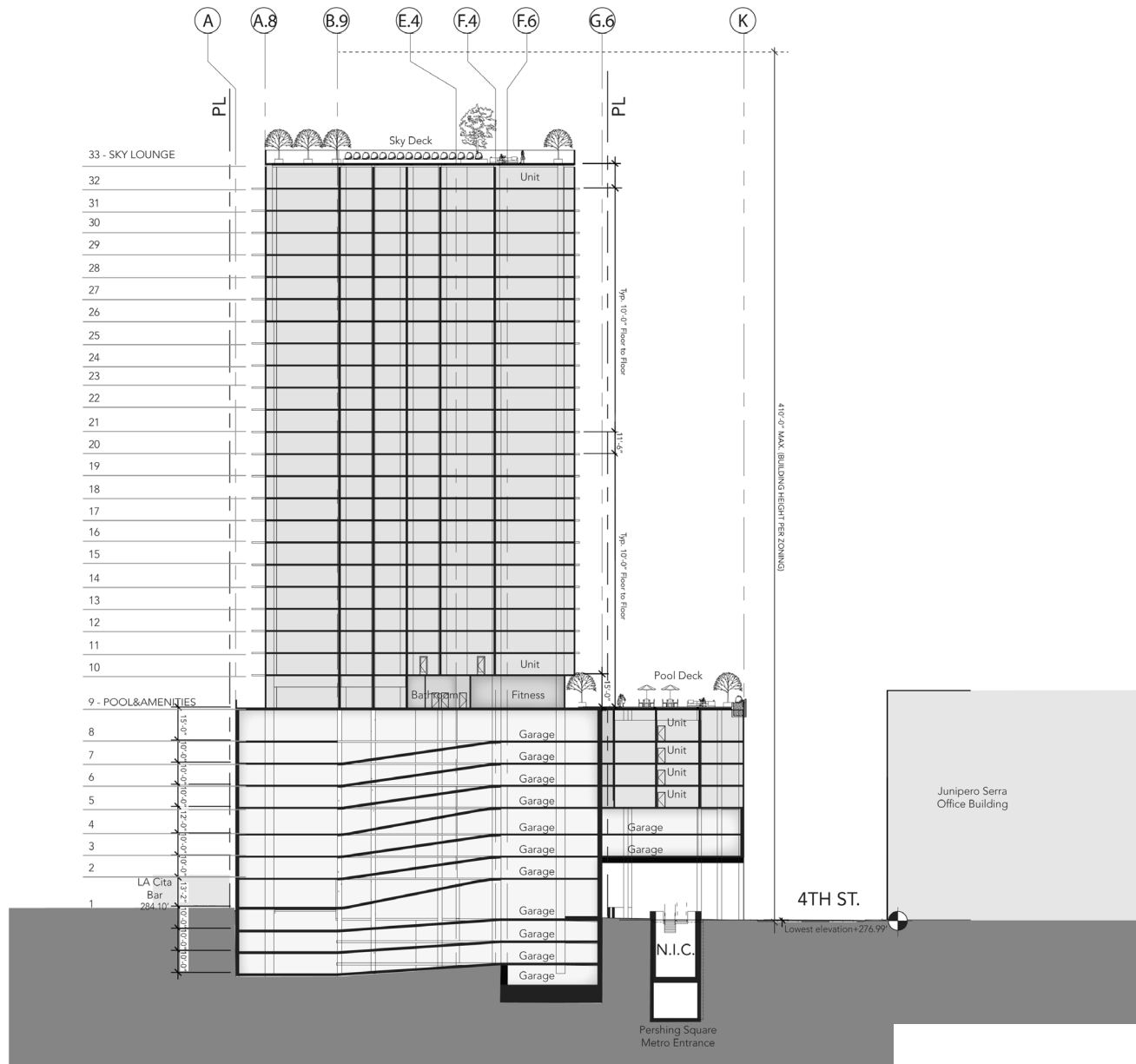
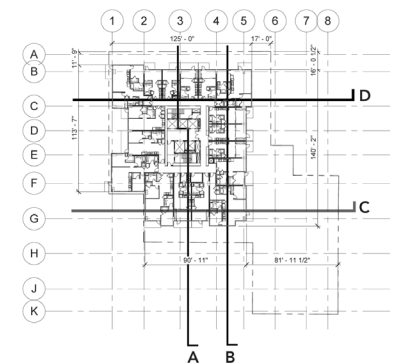
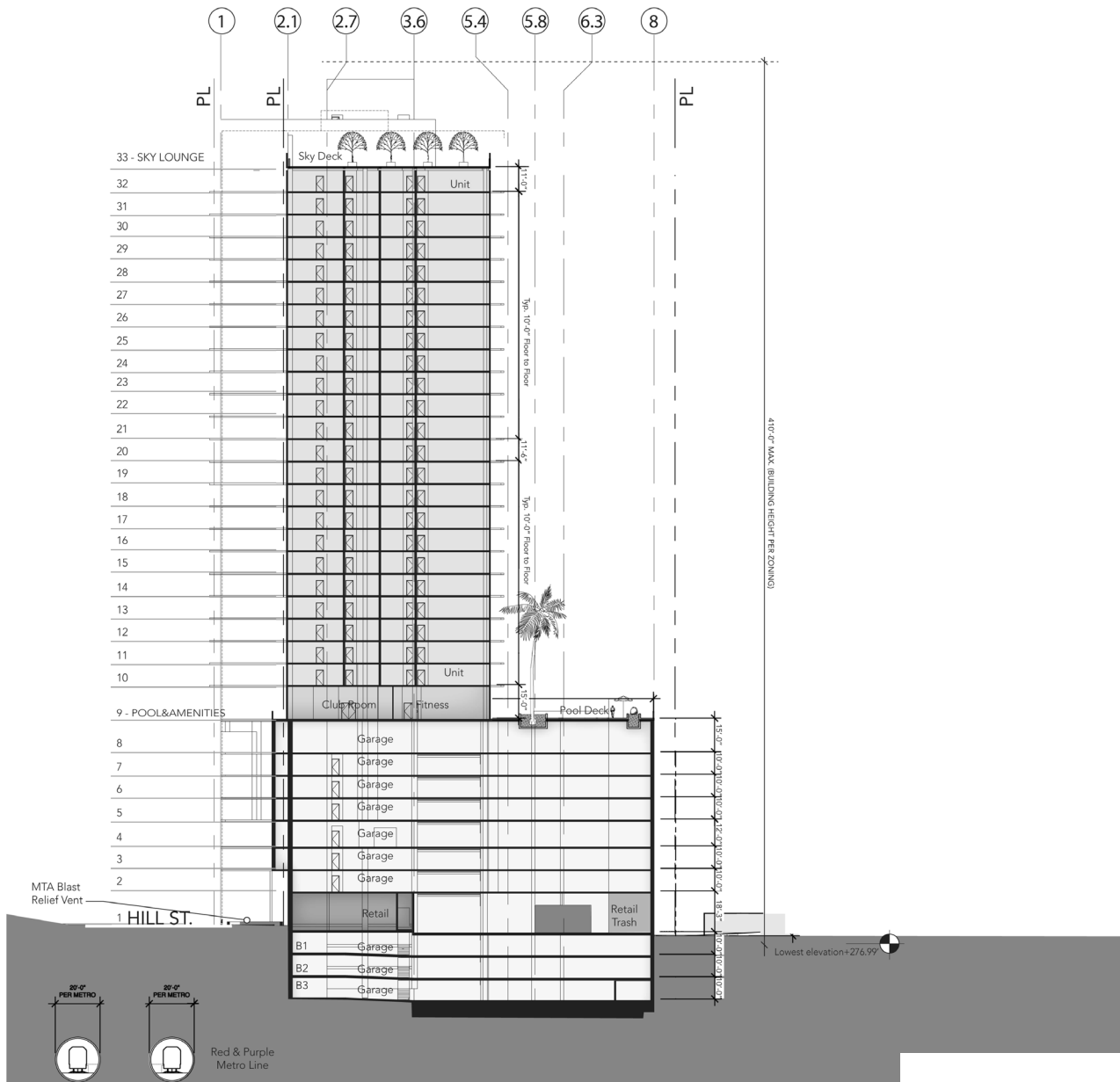


Figure II-21
Building Section A



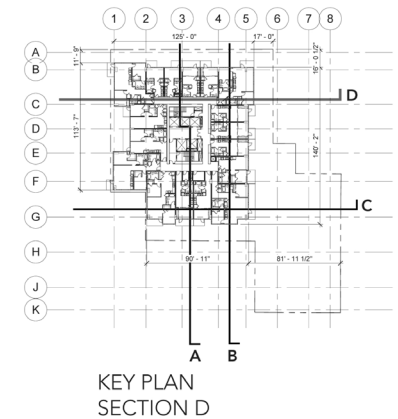
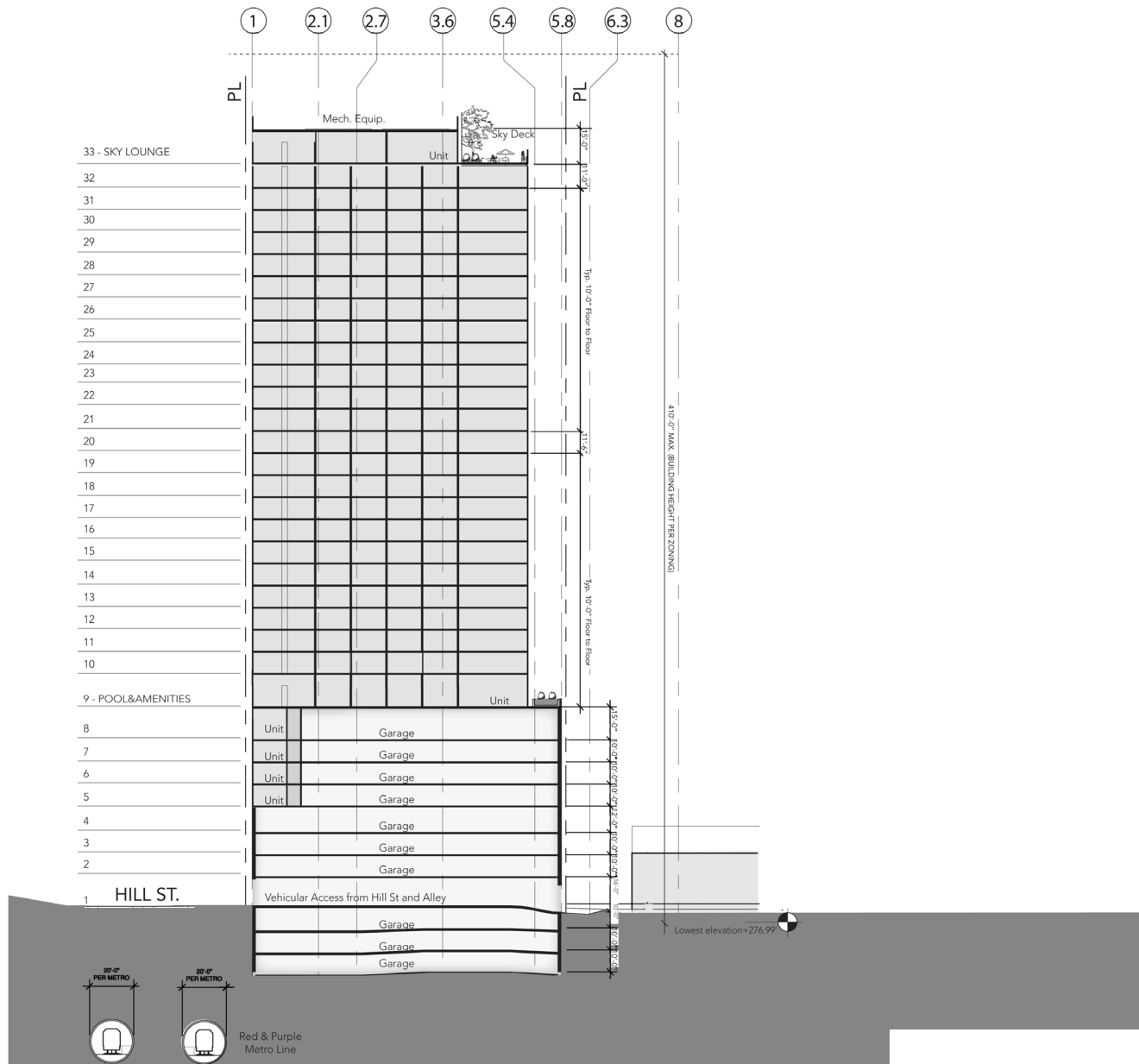
Source: TCA Architects, December 3, 2015.



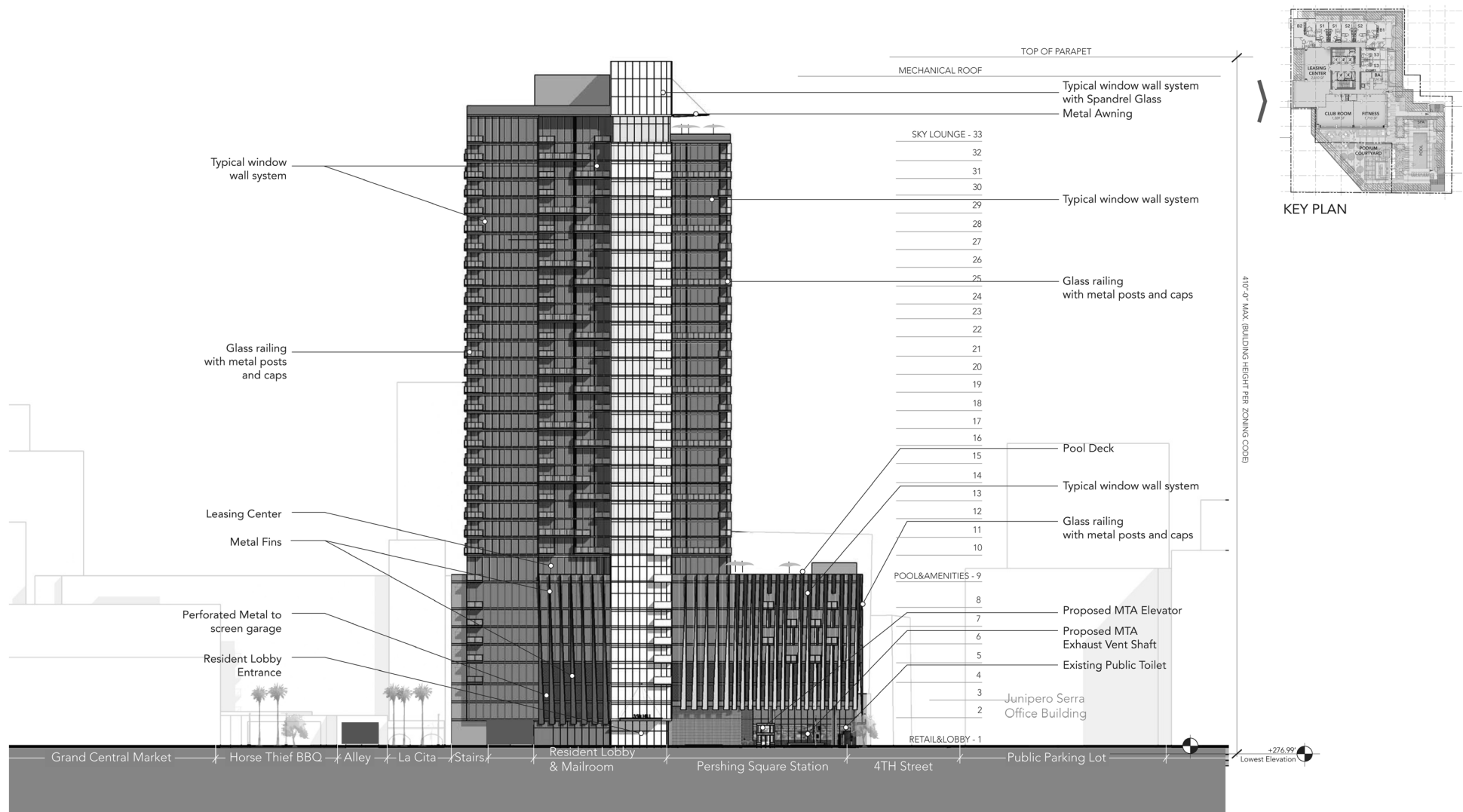
KEY PLAN
SECTION C

Source: TCA Architects, December 3, 2015.

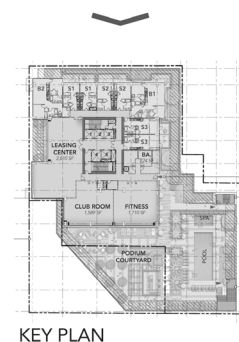
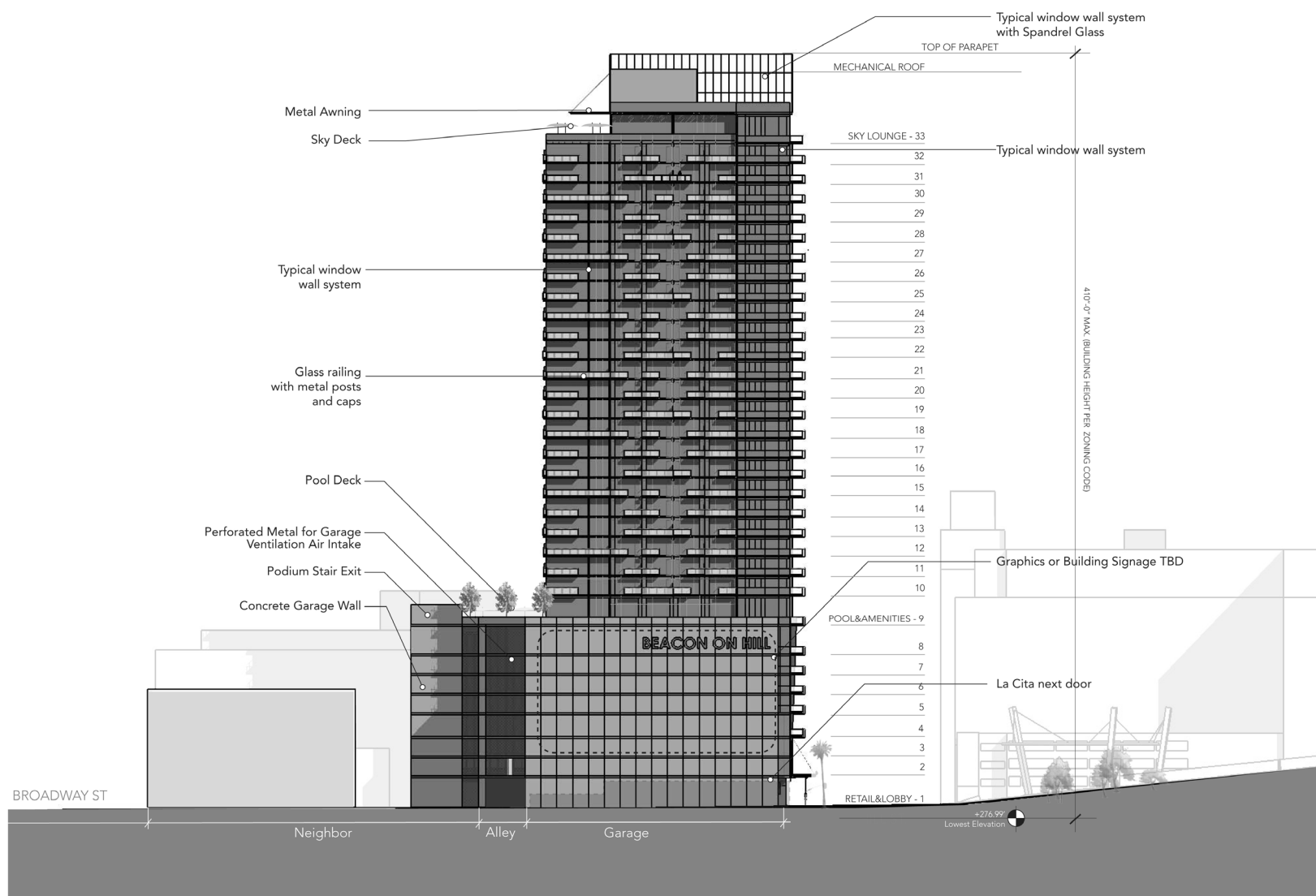
Figure II-23
Building Section C



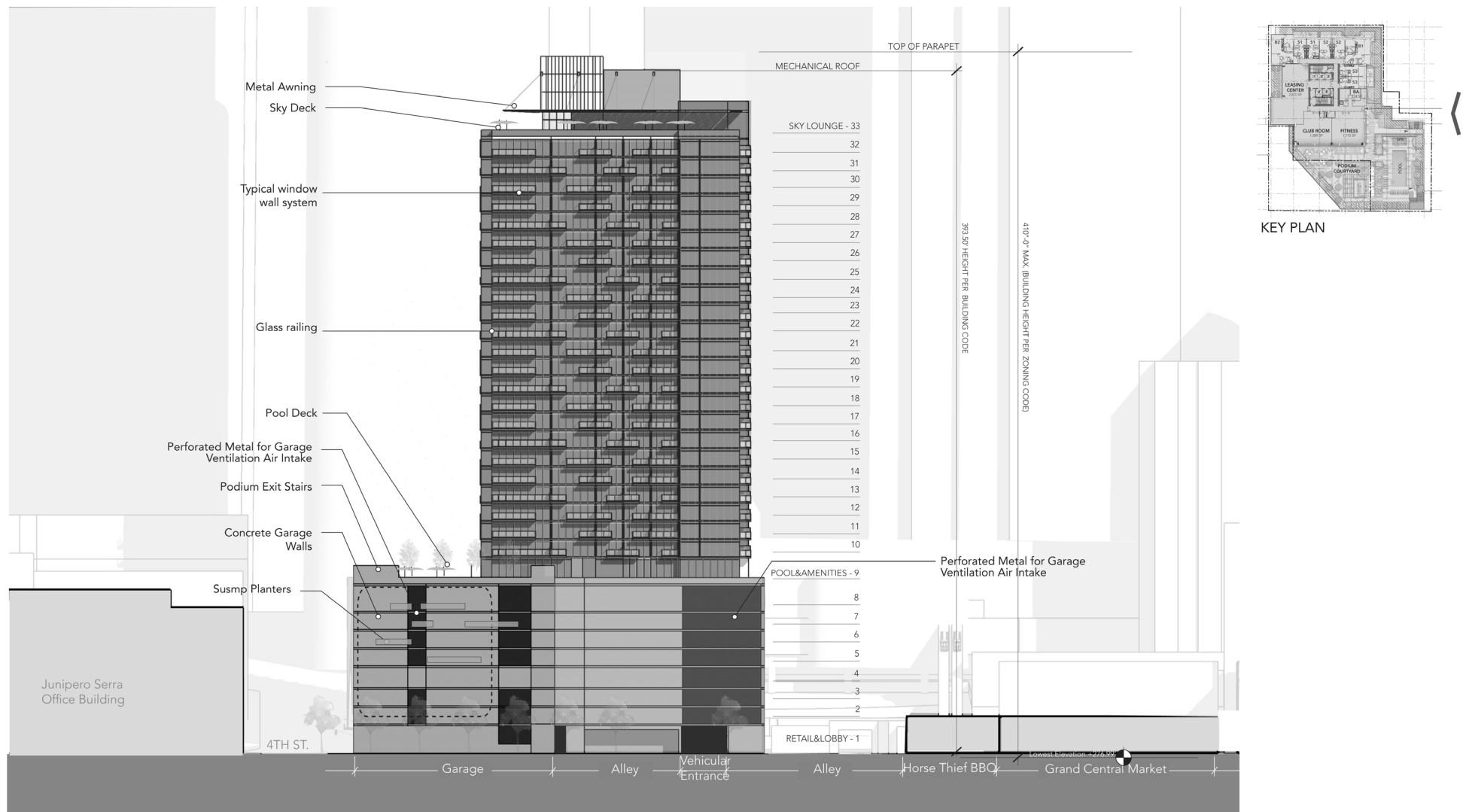
Source: TCA Architects, December 3, 2015.



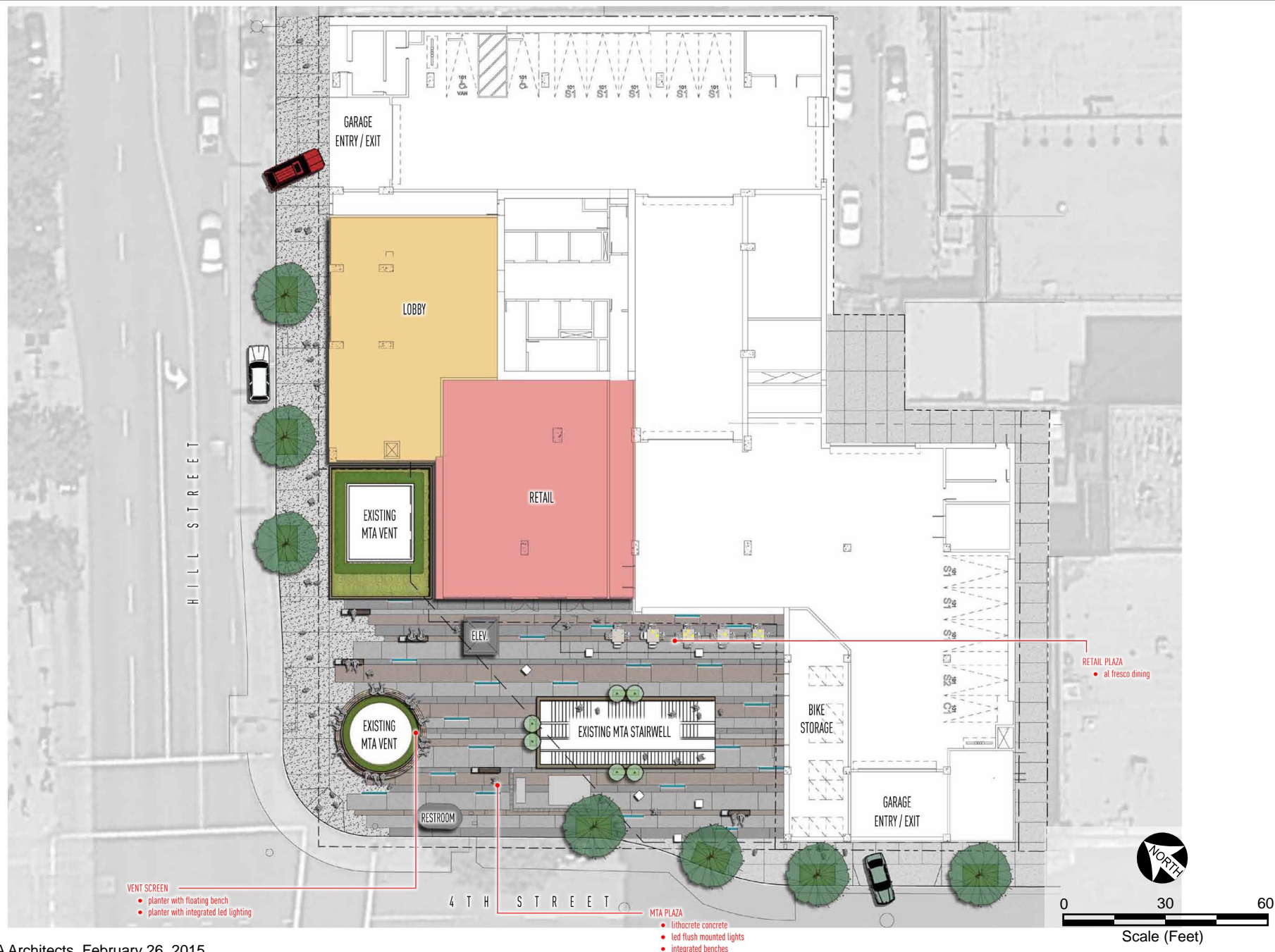
Source: TCA Architects, December 3, 2015.



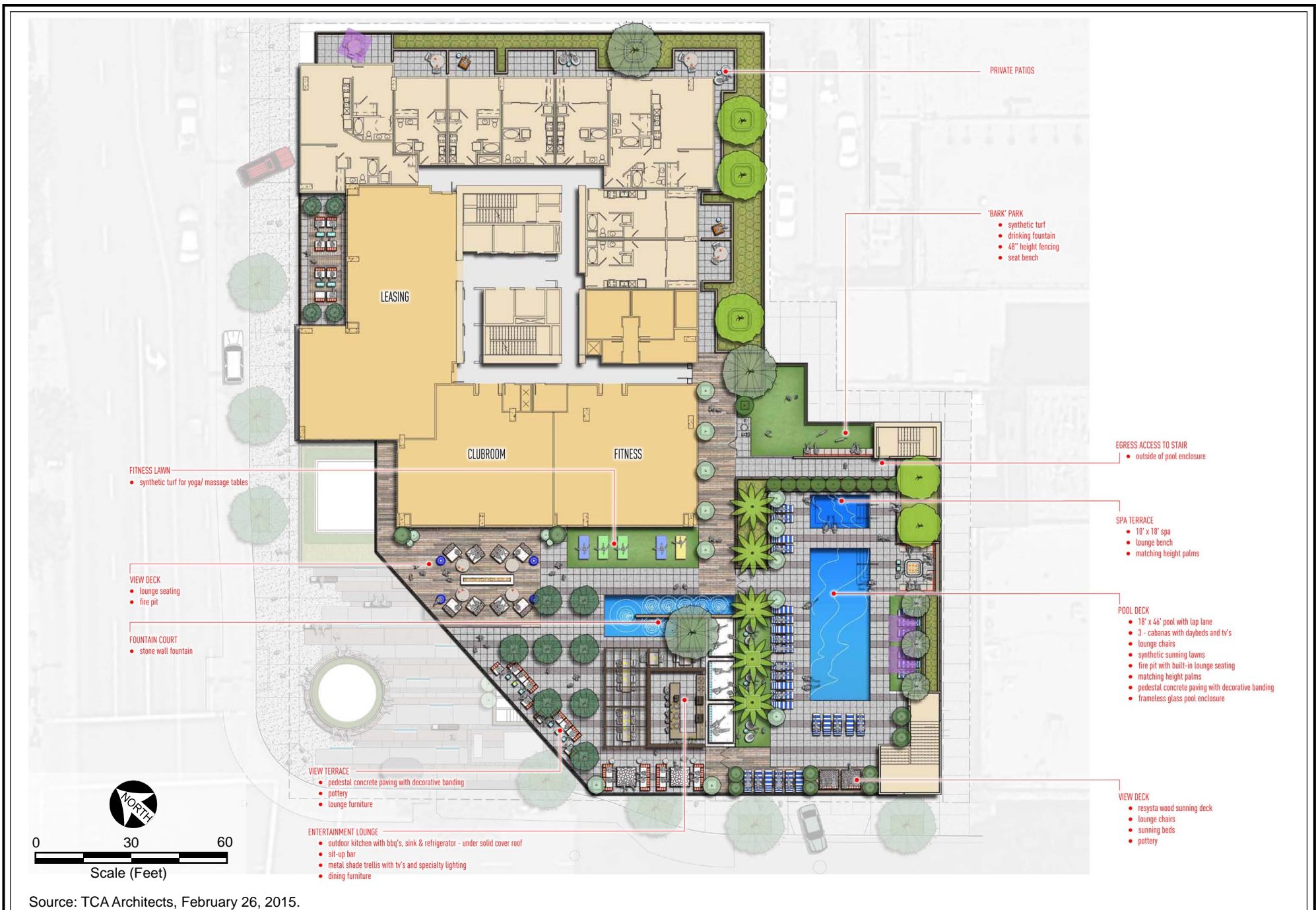
Source: TCA Architects, December 3, 2015.



Source: TCA Architects, December 3, 2015.



Source: TCA Architects, February 26, 2015.





Source: TCA Architects, February 26, 2015.



Source: TCA Architects, February 26, 2015.



Source: TCA Architects, February 26, 2016.



Source: TCA Architects, February 26, 2016.

The Project would be required to comply with the City of Los Angeles Downtown Design Guidelines. From an architectural perspective, the Downtown Design Guidelines emphasize walkability, sustainability and transit options; and urban design standards to coordinate and orchestrate the overall development of the City core, to ensure projects create and contribute to a livable downtown. As part of the application for development, the requisite Checklist for Project Submittal was submitted to the Department of City Planning demonstrating that the Project is overall consistent with the applicable design requirements for architectural detail, streetscape improvements, signage, public art, sidewalks and setbacks, ground floor treatment, parking and access, massing, and on-site open space. As demonstrated in the Checklist, included as Appendix A to this Initial Study, the Project is consistent with the applicable requirements of the Downtown Design Guidelines.

Specifically, the Project incorporates sustainable design features including convenient access to transit and landscape elements that reduce energy use. Also, the Project emphasizes walkability through the use of outdoor dining space, use of street trees and landscaping, and retail setbacks from sidewalks. Refer to Figures II-32 through II-34.

To be in accordance with the Downtown Design Guidelines, a project's building massing shall be designed to reinforce the street wall with well-scaled elements or structures that are sensitive to the neighborhood context. Further, monolithic slab-like structures that wall off views and overshadow the surrounding neighborhood are discouraged. The Project's building base would be of the same scale and size as the Million Dollar Theater, located at 307 South Broadway, one block north of the Project Site on the same block on Broadway, and would replicate the cornice line from the Junipero Serra Federal Building across the street. With the high-rise portion of the Project located directly on Hill Street and set back from the rear alley, the Project would create a transitional volume from the tall high rises of Bunker Hill to the low-rise structures on Broadway. Articulation of the window wall façade with transparent glass balconies would provide additional detail and human scale to the Project.

The Project's signage/way finding and architectural design would be similar to that of the existing buildings' located in the surrounding downtown area. The signage would utilize the same materials, colors, and textures found in the architecture to reinforce continuity and articulate the Project's building brand identity. The large blade signs and identity signs would be the same bronze color as the fins and mimic them in location as well. They would be internally illuminated with white L.E.D. lighting to create white lettering on the blade signs and identity signs. The signage would be placed lower on the building to effectively reduce the overall scale, creating a more welcoming experience for residents, visitors, and their guests. The remainder of the exterior signage would include 3D letters on the garage opening and above the doors to indicate address, lobby and retail, which would receive light from the architectural lighting on the building and would not be lit internally. The overall design would be simple and modern as it directs guests, visitors, and residents to the lobby entrance, retail, and parking garage.

The Project would include a two and a half level subterranean parking garage and a seven story parking podium. The parking podium design would comply with the Downtown Design Guide, specifically the parking and access guidelines, as well as the project design features included the City Planning

Commission Advisory Notice Relative to Above-Grade Parking.² In compliance with the Downtown Design Guide and the Commission's Advisory Notice, the Project's parking would be integrated into the building's design and would not be visible on the ground floor of the building facades that face Hill Street and/or 4th Street. Floors five through eight would be lined by habitable floor area along Hill Street and 4th Street.

The Project would be designed and constructed to achieve Leadership in Energy and Environmental Design (LEED) Gold standards. In response to solar heat gain from the sun, the exterior treatment of each façade would be articulated to minimize heat gain without compromising daylight and views. To the south and west portion, the building skin is proposed to have more solid panels and continuous cantilevered balconies that double as sun shade.

Multi-family Units

The Project would require the existing surface parking lot and restaurant located on the Project site to be demolished. The Project would develop the site with 428 multi-family residential units including 213 studio units, 89 1-bedroom units, and 126 2-bedroom units. The 428 residential units include 320 market rate units, 22 very-low income units (5 percent), and 86 workforce housing units (20 percent).³ The majority of multi-family units would be located on floors 10 through 32, with several units also located on floors 5 through nine and floor 33. Units would range in size from 407 to 1,306 square feet. The units would be offered in 20 different plan types. Table II-1 provides the unit type, number of each unit type, and average unit size.

Commercial Uses

The Project would include up to 7,200 square feet of commercial uses, including an approximately 2,980-square-foot leasing office, and up to 2,630 square feet of neighborhood-serving retail land uses. The neighborhood-serving retail uses would be located on the ground-floor, creating commercial frontage along the Metro plaza. Hill Street and 4th Street would be engaged by active commercial uses including a lobby, business center, and bike repair facility.

² City of Los Angeles Advisory Notice Relative to Above-Grade Parking, October 27, 2016.

³ The Project Applicant would have the discretion to convert the 20 percent of the workforce units to either 10 percent low-income or 15 percent moderate-income Restrictive Affordable units.

**Table II-1
Project Units**

Unit Type	Number of Units	Average Unit Size (square feet)
<i>Studio</i>		
S1	48	407
S2	48	430
S3	71	507
S4	46	602
<i>Type A 1-Bedroom</i>		
A1	1	607
A2	1	665
A3	23	678
A4	24	736
A5	24	737
A6	4	645
A7	4	723
A8	4	766
A8.1	4	909
<i>Type B 2-Bedroom</i>		
B1	24	1,095
B2	25	1,151
B3	23	1,202
B4	23	1,164
B5	23	1,243
B6	4	1,072
B7	4	1,306
<i>Source: TCA Architects</i>		

Vehicle Access and Parking

Vehicle access to the Project site would be provided from 4th Street, Hill Street, and through a rear alley accessible from 4th Street. A loading area would be located on the ground floor immediately adjacent to the podium courtyard and behind the ground-floor commercial uses to minimize visibility. The Project site is located within the Greater Downtown Housing Incentive Area, thus in accordance with the City of Los Angeles Municipal Code (LAMC) Section 12.22 A.29(c)(4) the Project Applicant is required to provide only one parking space (including spaces allocated for guest parking) for each dwelling unit. Further, the Project Applicant is not required to provide parking for dwelling units reserved for households earning less than 50 percent of the Area Median Income (AMI), as determined by the Housing and Community Investment Department.⁴ In addition, the Project Applicant is permitted to seek up to a 30 percent reduction in residential vehicle parking by providing the required amount of short and long-term bicycle parking as specified in LAMC Section 12.21 A.4.⁵ The Project Applicant is requesting a 7.6 percent reduction in vehicle parking (equivalent to 31 vehicle parking spaces), in addition to the permitted AMI parking reduction.

As shown on Table II-2, the Project would provide 435 residential vehicle parking spaces. The amount of commercial space proposed (2,509 square feet) does not meet the 7,500-square-foot commercial space threshold for commercial parking as specified in the Exception Downtown Business District; no commercial parking would be provided as part of the Project.⁶

The Project would include a two and a half level subterranean parking garage and a seven story parking podium. The seven story parking podium design would be subject to the parking and access guidelines included in the Downtown Design Guide, as well as the project design features included in the City Planning Commission Advisory Notice Relative to Above-Grade Parking.⁷ In compliance with the Downtown Design Guide the Project's parking would be developed in an internal parking structure (partially subterranean) and would not be visible on the ground floor of the building facades that face Hill Street and/or 4th Street. Floors five through eight of the parking structure would be lined by habitable floor area along Hill Street and 4th Street.

⁴ LAMC Section 12.22 A.29(c)(3)

⁵ LAMC Section 12.21A.4 states that if a residential building has applied for and received a density bonus under Section 12.22.A.25, 30 percent of the required automobile parking may be replaced as long as it is not utilizing one of the Density Bonus Parking reductions. The Project site is located in the Greater Downtown Housing Incentive area and therefore is not applying for a density bonus specified in LAMC Section 12.22.A.25. The City created its own Density Bonus provision for Downtown LA that is codified in LAMC 12.22 A 29

⁶ LAMC Section 12.21.A.4(i)

⁷ City of Los Angeles Advisory Notice Relative to Above-Grade Parking, October 27, 2016.

In addition, the Project would provide long-term and short-term commercial and residential bicycle parking. A total of four commercial bicycle parking spaces would be provided (2 long-term and 2 short-term), as well as a total of 471 residential bicycle spaces (43 short-term spaces and 428 long-term spaces).⁸

**Table II-2
Project Parking**

Dwelling Units	Parking Required¹	Total Parking Required
213 Studio	1 space/unit	213 spaces
89 1-bedroom	1 space/unit	89 spaces
126 2-bedroom	1 space/unit	126 spaces
<i>Total Parking Required</i>		<i>428 spaces</i>
<i>-5% Very-Low-Income Reduction</i>		<i>-22</i>
<i>-Up to 30% Replaced with Bicycle Parking</i>		<i>-31</i>
<i>Total Parking Required with Allowed Reductions</i>		<i>375</i>
Total Provided		435 spaces
¹ <i>Development of the Project site is subject to the Downtown Housing Incentive Ordinance parking requirements, which require 1 space per dwelling unit and do not require parking for commercial land uses measuring less than 7,500 square feet.</i>		

Open Space

As shown on Table II-3, in accordance with LAMC Section 12.21, the Project would be required to include a minimum of 46,350 square feet of open space. The Project would provide approximately 47,151 square feet of open space, including (but not limited to) 21,000 square feet of private open space, 4,683 square feet of residential amenities, a 13,798-square-foot pool court, and a 7,670-square-foot sky deck and lounge, exceeding the amount of required open space requirement by 801 square feet.

⁸ LAMC Section 12.21A.16.(a): "Long-term bicycle parking shall be provided at a rate of one per dwelling unit...short-term bicycle parking shall be provided at a rate of one per ten dwelling units...For all commercial, institutional, an industrial uses that require automobile parking under Subsections 12.21A.4.(c), (d), (e), and (f), short- and long-term bicycle parking shall be provided as per Table 12.21 A.16(a)(2)." In accordance with Table 12.21 A.16(a)(2) commercial uses (e.g., restaurants and retail) are required to provide 1 short-term and long-term bicycle parking space per 2,000 square feet (a minimum of 2 spaces).

**Table II-3
Open Space Required of and Provided by the Project**

Open Space Requirement	Project Units	Total Open Space Required
<3 habitable rooms = 100 sf/du	294 du ¹	29,400
3 habitable rooms = 125 sf/du	130 du ²	16,250
>3 habitable rooms = 175 sf/du	4 ³	700 sf
<i>Total Required</i>		<i>46,350 sf</i>
Total Provided		47,151 sf
<i>sf = square feet du = dwelling unit</i> ¹ Includes 213 studio units and 81 1-bedroom units. ² Includes 8 1-bedroom units with a den and 122 2-bedroom units. ³ Includes 2-bedroom units with a den.		

Construction

The Project's construction phase would occur over an approximately 29-month period, and would include demolition, site preparation, grading and excavation, and building construction phases. The grading and excavation phase would require the import of approximately 5,000 cubic yards of material and export of approximately 48,000 cubic yards of material.

PROJECT OBJECTIVES

The objectives of the Project are as follows:

- 1. Provide a set of mixed-uses that takes maximum advantage of the physical, social, and economic potential of the Project Site.**
 - Fully utilize the Project site consistent with the goals and policies in the Central City Community Plan and Downtown Design Guide.
 - Construct a development that incorporates a high quality structure landscaping and aesthetics, and creates a more beautiful and livable neighborhood environment.
 - Improve the visual character of the Project area by developing an empty and underutilized surface parking lot with a mixed-use building with a design consistent with the goals and policies of the plans and guides listed above.
- 2. Provide needed housing.**
 - Provide a mixed-use building with a variety of residential dwelling units to serve a range of potential renters including the provision of deed Restricted Affordable units, as well as provide the necessary infrastructure and associated amenities.

- Develop additional housing stock at an infill location that is close to commercial and office locations.
- Provide affordable housing in a mixed-income community near transit

3. Promote fiscal benefits, economic development, and job creation.

- Create construction jobs through construction of a new mixed-use development.
- Develop residential and commercial uses that generate local tax revenues and provide new permanent jobs and housing for residents who could support local business.

4. Create an environmentally sensitive development.

- Incorporate sustainable and green building design and construction to promote resource conservation, including waste reduction, efficient water management techniques, and conservation of energy to achieve a LEED-Gold certified building.
- Create a sustainable balance of commercial and residential uses located adjacent to transit.
- Incorporate sustainable and green building design and construction to promote resource conservation, including waste reduction, efficient water management techniques, and conservation of electricity and energy.
- Reduce vehicle miles traveled (VMT) and pollutant emissions by developing a site that is adjacent to a subway station and within walking distances of a significant employment node

REQUESTED DISCRETIONARY ACTIONS

In order to implement the Project, the Project Applicant is requesting approval of the following discretionary actions from the City:

- Pursuant to LAMC Section 16.05, Approval of Site Plan Review Findings
- Haul Route

The Project site is located in the Greater Downtown Housing Incentive area and therefore is not required to apply for a density bonus as specified in LAMC Section 12.22.A.25. Instead the Project can rely on the downtown Los Angeles density bonus provision (refer to LAMC 12.22.A.29) and the Certificate of Compliance (No. AA-2015-0983-COC). Additional discretionary actions, permits, and/or ministerial actions including but not limited to: street tree removal/replacement, demolition, excavation, shoring, grading, foundation, and building and tenant improvements may be required.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY AND CHECKLIST

LEAD AGENCY: City of Los Angeles	COUNCIL DISTRICT: CD 14-Jose Huizar	DATE: February 15, 2017
RESPONSIBLE AGENCIES: City of Los Angeles		
PROJECT TITLE: Equity Residential Mixed-Use Project		CASE NO.: ENV-2015-982-EIR
PROJECT DESCRIPTION: The Project includes the demolition of a 109 space surface parking lot and 850 square foot restaurant on the Project site and the construction of a 33-story mixed-use building comprised of 428 multi-family residential units and a maximum of approximately 5,610 square feet of commercial land uses (leasing office/neighborhood-serving retail), in the Central City Community Plan Area of the City of Los Angeles. In order to implement the Project, the Project Applicant is requesting approval of the following: (1) Pursuant to LAMC Section 16.05, Approval of Site Plan Review Findings, and (2) Haul Route.		
ENVIRONMENTAL SETTING: The Project site is made up of six parcels (Assessor Parcel Numbers (APNs) 5149-015-024, 5149-015-027, 5149-015-030, 5149-015-004, 5149-015-005, and 5149-015-013) and is bound by Hill Street to the west, a restaurant/bar building to the north, commercial/retail buildings to the east, and 4 th Street and a Metro subway portal to the south. Surrounding land uses include Angel's Knoll and Angels Flight Lower Station to the west/northwest and commercial to the east and south, and a restaurant to the immediate north. The site is adjacent to the Metro Red Line's Pershing Square northeast portal.		
PROJECT LOCATION: 338, 340, 342, 348, 352, 356 South Hill Street and 311, 321 West 4 th Street, Los Angeles, CA 90013		
PLANNING DISTRICT: Central City		STATUS <input type="checkbox"/> PRELIMINARY <input type="checkbox"/> PROPOSED <input checked="" type="checkbox"/> ADOPTED
EXISTING ZONING: C2-4D	MAX. DENSITY ZONING: 570.7 dwelling units/acre	<input checked="" type="checkbox"/> DOES CONFORM TO PLAN <input type="checkbox"/> DOES NOT CONFORM TO PLAN <input type="checkbox"/> NO DISTRICT PLAN
PLANNED LAND USE & ZONING: Regional Center Commercial	MAX. DENSITY PLAN: 570.7 dwelling units/acre	
SURROUNDING LAND USES: C2-4D, C4-4D, PF-4D	PROJECT DENSITY: 570.7 dwelling units/acre	

DETERMINATION (To be completed by Lead Agency)**On the basis of this initial evaluation:**


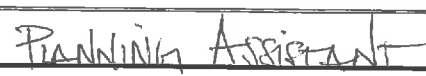
I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- x I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find the proposed project MAY have a "potentially significant impact" or "Less Than Significant With mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

	
SIGNATURE	TITLE

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of a mitigation measure has reduced an effect from “Potentially Significant Impact” to “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analysis,” as described in (5) below, may be cross referenced).
5. Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
 - A. Earlier Analysis Used. Identify and state where they are available for review.
 - B. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - C. Mitigation Measures. For effects that are “Less Than Significant With Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s

environmental effects in whichever format is selected.

9. The explanation of each issue should identify:

- A. The significance criteria or threshold, if any, used to evaluate each question; and
- B. The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least an impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages:

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Recreation |
| <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Hydrology & Water Quality | <input checked="" type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Land Use & Planning | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Biological Resource | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Utilities & Service Systems |
| <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Noise | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Geology & Soils | <input checked="" type="checkbox"/> Population & Housing | |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Public Services | |

INITIAL STUDY CHECKLIST (to be completed by the Lead Agency)**BACKGROUND****PROPONENT NAME**EQR 4th & Hill LP**PHONE NUMBER**

Tel: 773-505-2275

PROPONENT ADDRESS6100 Center Drive, Suite 750
Los Angeles, CA 90045**PROPONENT REPRESENTATIVE**

Allison A. Geiman, Development Director

AGENCY REQUIRING CHECKLIST

City of Los Angeles

DATE SUBMITTED

N/A

PROPOSAL NAME (if applicable)

Equity Residential Mixed-Use Project

ENVIRONMENTAL IMPACTS

Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)

1. Aesthetics. Would the project:

- a. Have a substantial adverse effect on a scenic vista?
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?
- c. Substantially degrade the existing visual character or quality of the site and its surroundings?
- d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓
			✓
			✓
			✓

2. Agriculture and Forestry Resources. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 [g])?
- d. Result in the loss of forest land or conversion of forest land to non-forest use?
- e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓
			✓
			✓
			✓
			✓

3. **Air Quality.** The significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?
- Expose sensitive receptors to substantial pollutant concentrations?
- Create objectionable odors affecting a substantial number of people?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
✓			
✓			
✓			
		✓	

4. **Biological Resources.** Would the project::

- Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
			✓
			✓
			✓
		✓	
			✓

5. **Cultural Resources.** Would the project:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
- Directly or indirectly destroy a unique paleontological resource or site or

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
		✓	
		✓	

5. **Cultural Resources.** Would the project:

- unique geologic feature?
- d. Disturb any human remains, including those interred outside of formal cemeteries?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	

6. **Geology & Soils.** Would the project:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - Strong seismic ground shaking?
 - Seismic-related ground failure, including liquefaction?
 - Landslides?
- b. Result in substantial soil erosion or the loss of topsoil?
- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?
- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓
		✓	
		✓	
			✓
		✓	
			✓
			✓

7. **Greenhouse Gas Emissions.** Would the project:

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

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
✓			

8. **Hazards & Hazardous Materials.** Would the project:

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b. Create a significant hazard to the public or the environment through

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
✓			

- reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
 - d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
 - e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
 - f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
 - g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
 - h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

		✓	
			✓
		✓	
			✓
		✓	
			✓

9. Hydrology & Water Quality. Would the project:

- a. Violate any water quality standards or waste discharge requirements?
- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner which would result in substantial erosion or siltation on- or off-site?
- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
- e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- f. Otherwise substantially degrade water quality?
- g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j. Inundation by seiche, tsunami or mudflow?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
			✓
		✓	
		✓	
		✓	
		✓	
			✓
			✓
			✓
			✓

10. Land Use and Planning. Would the project:

- a. Physically divide an established community?
- b. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
- c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓
✓			
			✓

11. Mineral Resources. Would the project:

- a. Result in the loss or availability of a known mineral resource that would be of value to the region and the residents or the state?
- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓
			✓

12. Noise. Would the project result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f. For a project within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
✓			
✓			
✓			
			✓
			✓

13. Population and Housing. Would the project:

- a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
			✓
			✓

14. Public Services.

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
 - i. Fire protection?
 - ii. Police protection?
 - iii. Schools?
 - iv. Parks?
 - v. Other public facilities?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
✓			
✓			
✓			
✓			

15. Recreation.

- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b. Does the project include recreational facilities or require the construction or expansion on recreational facilities which might have an adverse physical effect on the environment?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
		✓	

16. Transportation/Traffic. Would the project:

- a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			

16. Transportation/Traffic. Would the project:

- b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the count congestion management agency for designated roads or highways?
- c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e. Result in inadequate emergency access?
- f. Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
			✓
		✓	
✓			
✓			

17. Tribal Cultural Resources. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native tribe, and that is:

- a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?
- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
✓			

18. Utilities & Service Systems. Would the project:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b. Require or result in the construction of a new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
✓			
		✓	
✓			
✓			

18. Utilities & Service Systems. Would the project:

- f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- g. Comply with federal, state, and local statutes and regulations related to solid waste?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
		✓	

19. Mandatory Findings of Significance.

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)
- c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
✓			
✓			
✓			

IV. ENVIRONMENTAL IMPACT ANALYSIS

The following discussion provides responses to each of the questions set forth in the City of Los Angeles Initial Study Checklist. The responses below indicate those issues that are expected to be addressed in an Environmental Impact Report (EIR) and demonstrate why other issues would not result in potentially significant environmental impacts and thus do not need to be addressed further in an EIR. The questions with responses that indicate a “Potentially Significant Impact” do not presume that a significant environmental impact would result from the Project. Rather, such responses indicate those issues that will be addressed in an EIR, with precise impact conclusions reached as part of the analysis within that future document.

1. AESTHETICS

In 2013, the State of California enacted Senate Bill 743 (SB 743), which made several changes to CEQA for projects located in areas served by transit. Specifically, Public Resources Code Section 21099 provides that “aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.” Public Resources Code Section 21099 defines a “transit priority area” as an area within one-half mile of a major transit stop that is “existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.” Public Resources Code Section 21064.3 defines “major transit stop” as “a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.” Public Resources Code Section 21099 defines an infill site as a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. This state law supersedes the aesthetic impact threshold in the L.A. CEQA Thresholds Guide.

The Project is a 33-story mixed-use infill development consisting of up to 5,610 square feet of commercial land uses (including an approximately 2,980-square-foot leasing office and up to 2,630 square feet of neighborhood-serving retail land uses), 428 multi-family residential units, 47,151 square feet of open space/recreation uses, residential vehicle parking, and short and long-term bicycle parking. The Project site is located directly adjacent to the Metro Red Line’s Pershing square subway station northeast portal, thus the Project site is located in a transit priority area as defined in Public Resources Code Section 21099. Further, the Project site is located in an urban area and served multiple local bus lines.

On February 10, 2016, the City circulated Zoning Information File No. 2452 to clarify the locations of transit priority areas within the City, and reaffirm that aesthetic impacts shall not be considered a significant impact on the environment under the provisions of SB 743 (refer to Appendix A).

Specifically, Zoning Information File No. 2452 states that visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact, as defined in the City's CEQA Threshold Guide, shall not be considered an impact for infill projects within transit priority areas pursuant to CEQA. A map of transit priority areas is attached to Zoning Information File No. 2452 in Appendix A. As shown on that map, the Project site is located in a transit priority area.

Thus, the Project's aesthetic (and parking) impacts are not considered significant impacts on the environment pursuant to Public Resources Code Section 21099. Therefore, an assessment of the Project's potential aesthetics impacts is not required. However, some of the aesthetics issues below will be addressed in the EIR for informational purposes only.

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. A scenic vista generally provides focal views of objects, settings, or features of visual interest; or panoramic views of large geographic areas of scenic quality, primarily from a given vantage point. Scenic vistas are generally associated with public vantages. A significant impact may occur if the Project introduces incompatible visual elements within a field of view containing a scenic vista or substantially alters a view of a scenic vista.

The Project site is located in downtown, an urbanized area of the City. The Project site is currently developed with a restaurant and surface parking lot. The area surrounding the Project site is developed with a mix of low- to high-rise buildings associated with a variety of commercial and residential land uses. Due to existing topography and urban development, views from within the Project site area are limited to short- and mid-range views of existing structures; no scenic vistas are present from and/or near the Project site. For this reason, the Project would not have the potential to have a substantial adverse effect on a scenic vista. Therefore, no impacts related to scenic vistas would occur as a result of the Project, and no further analysis of this issue is required in the EIR.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway?

No Impact. The Project site is not visible from any designated scenic roadways or highways. According to Map A7 of the Mobility Plan, the closest City-designated highway to the Project site is Stadium Way, located approximately 1.5 miles to the north. However, due to the age of the restaurant building (built in 1961) on the Project site that would be demolished and removed as part of the Project, the building potentially could be a significant historic resource. Additionally, other significant historical buildings are located in the vicinity of the Project site that could be affected by the Project. As discussed previously, due to SB 743 and Zoning Information File No. 2452, the Project's aesthetics impacts (including those to scenic resources) are considered less than significant. Nonetheless, this issue will be addressed in the EIR for informational purposes only.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

No Impact. The Project site is located at the intersection of Hill Street and 4th Street in downtown Los Angeles. The Project site is currently developed with a restaurant and surface parking. The visual character of the Project site area is characterized by high-density, low- to high-rise development, including a mix of land uses. The Project includes demolition and removal of the existing land uses from the Project site and development of the site with a 33-story mixed-use building comprising 428 multi-family residential units and a maximum of 5,610 square feet of commercial land uses (leasing office/neighborhood-serving retail), and would alter the visual character of the Project site and surrounding area. As discussed previously, due to SB 743 and Zoning Information File No. 2452, the Project's aesthetics impacts (including those related to visual character) are considered less than significant. Nonetheless, for informational purposes this issue will be addressed in the EIR and include a consistency analysis between the Project and the Downtown Design Guidelines.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The Project site is located in downtown Los Angeles and is currently developed with a restaurant and surface parking lot. The surrounding area is fully developed with low and high-density land uses and roadway and utility infrastructure, all of which produce light and glare (e.g., indoor/outdoor lighting, windows, light-colored surfaces, etc.) typical of such urban uses in the City. The Project includes demolition and removal of the existing land uses from the Project site and development of the site with a 33-story mixed-use building comprising 428 multi-family residential units and a maximum of 5,610 square feet of commercial land uses (leasing office/neighborhood-serving retail), and would add additional sources of light and glare at the Project site. The ground-floor commercial uses would be constructed out of large cardinal glass panes with exterior reflectance of 27 percent and 36 percent to create a transparent interior-exterior relationship. Glass used in building facades shall minimize glare by minimizing the use of glass with mirror coatings. Consistent with applicable energy and building code requirements, including Section 140.3 of the California Energy Code as may be amended, glass with coatings required to meet the Energy Code requirements shall be permitted. Additionally, the proposed building would cast shadow onto adjacent properties and could affect shade-sensitive land uses. As discussed previously, due to SB 743 and Zoning Information File No. 2452, the Project's aesthetics impacts (including those related to light and glare and shade/shadow) are considered less than significant. Nonetheless, this issue will be addressed in the EIR for informational purposes only.

2. AGRICULTURE AND FORESTRY RESOURCES

a) **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The Extent of Important Farmland Map Coverage maintained by the Division of Land Protection indicates that the Project site is not included in the Important Farmland category.¹ Therefore, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. No impacts would occur, and no further analysis of this issue is required in the EIR.

b) **Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?**

No Impact. The Project site is zoned C2-4D and located in the Central City Community Plan area. The General Plan land use designated for the Project site is Regional Center Commercial. The Project site is not zoned for agricultural use, and the site is not under a Williamson Act Contract.² Therefore, the Project would not conflict with existing zoning for agricultural use, or a Williamson Act Contract. No impacts would occur, and no further analysis of this issue is required in the EIR.

c) **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 [g])?**

No Impact. The Project site is located in an urbanized area of the City and is developed with a surface parking lot and an 850-square-foot restaurant. The Project site does not include any forest or timberland and is not zoned as forest land or timberland. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

¹ State of California Department of Conservation, Division of Land Resource Protection, *Farmland Mapping and Monitoring Program, Los Angeles County Important Farmland, 1998.*

² *Ibid.*

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site is located in a developed area of the City and does not contain any forest land. Additionally, forest land is defined as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”³ Timberland is defined as “land...which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees.”⁴ There are 29 trees located on the Project site and along the public right of way parkway, none of the trees are protected species as defined below in Issue 4, Biological Resources. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

e) Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No Impact. The Project site and surrounding area are developed with urban land uses. The Project site is currently developed with a surface parking lot and an 850-square-foot restaurant. No agricultural uses are located on the Project site or within the area. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

3. AIR QUALITY

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The Project site is located within the South Coast Air Basin (Basin) and thus, is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). In conjunction with the Southern California Association of Governments (SCAG), SCAQMD is responsible for formulating and implementing air pollution control strategies, including periodic updates to the AQMP, and guidance to local government about how to incorporate these strategies into their land use plans and decisions about development.

SCAG is responsible for generating the socio-economic profiles and growth forecasts on which land use, transportation, and air quality management and implementation plans are based. The growth forecasts

³ California Public Resources Code Section 1222 [g]

⁴ California Public Resources Code Section 4526

provide the socioeconomic data used to estimate vehicle trips and vehicle miles traveled (VMT). Emission estimates then can be forecast by SCAQMD based on these projected estimates. Reductions in emissions due to changes in the socio-economic profile of the region are an important way of taking account of changes in land use patterns. For example, changes in jobs/housing balance induced by changes in urban form and transit-oriented development induce changes in VMT by more closely linking housing to jobs. Thus, socio-economic growth forecasts are a key component to guide the Basin toward attainment of the National Ambient Air Quality Standards (NAAQS).

The current AQMP establishes a comprehensive regional air pollution control program leading to the attainment of state and federal air quality standards in the Basin. In addition to setting minimum acceptable exposure standards for specified pollutants, the AQMP incorporates SCAG's growth management strategies that can be used to reduce vehicle trips and VMT, and hence air pollution. These include, for example, co-location of employment and housing, and mixed-use land patterns that allow the integration of residential and non-residential uses.

The Project site is developed with a surface parking lot and an 850-square-foot restaurant. Demolition of the existing uses, as well as the Project's grading, construction, and operational activities would generate pollutant emissions and would have the potential to conflict with SCAQMD's AQMP. Therefore, this issue will be addressed in the EIR.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Potentially Significant Impact. The Project's grading and construction would result in short-term air pollutant emissions associated with construction worker vehicle trips, haul truck trips, stationary source emissions, and site grading. In addition, operational activities associated with the Project would generate long-term air pollutant emissions. Thus, construction and operation of the Project have the potential to violate air quality standards. An air quality report will be prepared for the Project to determine if the construction and operational emissions would violate the SCAQMD's thresholds. Therefore, this issue will be addressed in the EIR.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative threshold for ozone precursors)?

Potentially Significant Impact. As discussed above, the Project's construction, and operational activities would generate pollutant emissions and have the potential to contribute to cumulative air quality impacts in the Basin. The Project site is designated under the California ambient air quality standards (AAQS) as non-attainment for ozone (O₃), coarse inhalable particulate matter (PM₁₀), and inhalable particulate matter

(PM_{2.5}). Under the National AAQS, the Basin is designated as non-attainment for O₃, lead (Pb) and PM_{2.5}.⁵ An air quality report will be prepared to determine if construction and operation of the Project would result in a cumulatively considerable net increase in any criteria pollutant. In addition, a Health Risk Assessment will analyze the Project's construction related impacts. Therefore, further analysis of this topic is required in the EIR.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. The Project's construction (short-term) and operational (long-term) activities would generate pollutant emissions and have the potential to expose sensitive receptors (e.g., children and elderly individuals) to pollutant emissions. Sensitive receptors located in the Project area include residential uses to the northeast and west of the Project site. Therefore, this issue will be addressed in the EIR.

e) Would the project create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project site. The Project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Construction of the Project would not cause an odor nuisance.

According to the SCAQMD CEQA Air Quality Handbook, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The proposed land uses would not result in activities that create objectionable odors. Therefore, Project impacts related to odors would be less than significant. No further analysis of this issue is required in an EIR.

4. BIOLOGICAL RESOURCES

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulation, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact. The Project site is located in an urbanized and developed area of the City. The site is developed with an 850-square-foot restaurant and surface parking lot and does not

⁵ California Environmental Protection Agency, Air Resources Board, Area Designations Maps/State and National December 2015.

support any sensitive species. However, the Project site contains 29 trees that would be removed as part of the Project (refer to the Street Tree Report in Appendix B). These trees could potentially provide nesting sites for migratory birds. Thus, the Project would be required to comply with the Migratory Bird Treaty Act (MBTA) (Title 33, United States Code, Section 703 et seq., see also Title 50, Code of Federal Regulation, Part 10) and Section 3503 of the California Department of Fish and Wildlife Code, which regulates vegetation removal during the nesting season (February 15 to August 15) to ensure that significant impacts to migratory birds would not occur. Compliance with these existing regulations would ensure impacts would be less than significant. No further evaluation of this topic is required in the EIR.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The Project site is located in an urbanized area of the City and developed with a surface parking lot and an 850-square-foot restaurant. The Project site does not contain any riparian habitat or sensitive natural community. Development of the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The Project site is located in an urbanized area of the City. The site is developed with a surface parking lot and an 850-square-foot restaurant and does not contain any wetlands or other areas subject to the jurisdiction of the US Army Corps of Engineers, California Department of Fish and Wildlife, or State Water Resources Control Board under the Clean Water Act. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Project site is located in an urbanized area of the City and is surrounded by existing development. The site is developed with a surface parking lot and an 850 square foot restaurant and is not part of a significant wildlife corridor. Additionally, there are no waterways located in the Project area that are used by migratory fish, and there are no wildlife nursery sites in the area. Also, as discussed previously, the Project would be required to comply with the MBTA, to reduce potential impacts to migratory bird species. Therefore, the Project would not interfere substantially with the movement of any

native resident or migratory fish, wildlife species, or with established native resident or migratory wildlife corridors, and/or impede the use of native wildlife nursery sites. No impacts related to this issue would occur, and no further analysis of this issue is required in the EIR.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. No oak trees or other protected trees are located on or adjacent to the Project site. In accordance with the Los Angeles Municipal Code (LAMC) Section 17.02 protected trees are defined as follows:

Any of the following Southern California native tree species, which measures four inches or more in cumulative diameter, four and one half feet above the ground level at the base of the tree:

- (a) Oak tree including Valley Oak (*Quercus lobata*) and California Live Oak (*Quercus agrifolia*), or any other tree of the oak genus indigenous to California but excluding the Scrub Oak (*Quercus dumosa*).
- (b) Southern California Black Walnut (*Juglans californica* var. *californica*).
- (c) Western Sycamore (*Platanus racemosa*).
- (d) California Bay (*Umbellularia californica*).

As stated above, a total of 29 trees are located on the Project site and in the public right away. None of the trees, including the 11 Mexican Fan Palms (*Washingtonia robusta*), nine London Plane trees (*Platanus x acerifolia*), and three Indian Laurel Fig trees (*Ficus microcarpa* “*nitida*”) located on the Project site, as well as the six London Plane trees located in the public right away, along Hills Street (i.e., street trees), are protected species as defined above (refer to the Tree Report in Appendix B). These 29 trees (including the 6 street trees) would be removed during construction of the Project. The Project Applicant would be required to comply with the City’s policy to replace all significant, non-protected trees (defined as eight inches in diameter) at a 1:1 ratio with a minimum 24-inch box size tree.

Prior to the issuance of a Certificate of Occupancy, the Project Applicant would be required to show proof, to the Urban Forestry Division, of a Tree Removal Permit and a subsequent Tree Planting Permit, as well as approval from the Board of Public Works for all street trees being removed and replaced. Compliance with the City’s requirements would ensure no significant impacts related to significant tree replacement would occur. No further analysis of this issue is required in the EIR.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is located in an urbanized area of the City. There are no identified Significant Ecological Areas (SEAs) within the vicinity of the Project site and the site is not subject to a Habitat

Conservation Plan, a Natural Community Conservation Plan, or other such plan.⁶ Therefore, the Project would not conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan. No further analysis of this issue is required in the EIR.

5. CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Potentially Significant Impact. Section 15064.5 of the CEQA Guidelines defines a historical resource as: (1) a resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources; (2) a resource listed in a local register of historical resources or identified as significant in an historical resource survey meeting certain state guidelines; or (3) an object, building, structure, site, area, place, record or manuscript that a lead agency determines to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided that the lead agency's determination is supported by substantial evidence in light of the whole record. The Project site is developed with a 109 space surface parking lot and an 850-square-foot restaurant, which was built in 1961, and due to its age, potentially could be a significant historical resource. The Project site is not located in a Historic Preservation Overlay Zone.

There are ten significant historical resources in the Project site area. Angel's Flight (City Historic-Cultural Monument) is located on Hill Street across from the Project site, mid-block between 3rd and 4th Streets. The Broadway Theater and Commercial District, listed in the National Register of Historic Places, is located east of the Project site along Broadway. Five contributing resources to this district fall within the Project site area: Grand Central Market, Million Dollar Theater, Broadway Department Store, Wilson Building, and Metropolitan Building. South of 4th Street along Hill Street are four additional historical resources: the Pershing Square Building (City Historic-Cultural Monument), Hotel Clark (City Historic-Cultural Monument), Subway Terminal Building (City Historic-Cultural Monument), and the Title Guarantee & Trust Building (City Historic-Cultural Monument). A historical resources review will be conducted to determine whether the Project would affect the historical significance of these structures. This issue will be addressed in the EIR.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?

Less Than Significant Impact. Based on a records search conducted by the South Central Coast Information Center, 11 archaeological sites have been recorded within a 0.5-mile radius of the Project

⁶ City of Los Angeles General Plan Conservation Element, Exhibit B2.

site. However, no archaeological sites and/or resources have been recorded at the Project site (refer to Appendix C). During the Project's construction phase, excavation of the Project site to approximately 30 feet below ground surface would occur to develop the proposed subterranean parking levels. According to the Geotechnical Report (refer to Appendix D) prepared for the Project, the first 5 to 10 feet of soils below ground surface are artificial fill materials underlain by alluvium. As such, the likelihood for archaeological resources to exist within the artificial fill would be remote. However, given the relative sensitivity of the Project region, it is possible that unknown archaeological resources could exist at the Project site and could be encountered during grading and excavation activities. As such, prior to Project construction, the prime contractor and any subcontractor(s) shall be advised of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the Project site. In addition, in the event that buried archaeological resources are exposed during Project construction, work within 50 feet of the find shall stop until a professional archaeologist, meeting the standards of the Secretary of the Interior, can identify and evaluate the significance of the discovery and develop recommendations for treatment, in conformance with California Public Resources Code Section 21083.2. Construction activities could continue in other areas of the Project site. Recommendations could include preparation of a Treatment Plan, which could require recordation, collection and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any Native American remains shall be treated in accordance with state law. Through compliance with these existing regulations, potential Project impacts to unknown archaeological resources would be less than significant. No further analysis of this issue is required in the EIR.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. A records search was conducted with the Los Angeles County Natural History Museum to determine the likelihood for unique paleontological resources to occur at the Project site (refer to Appendix C). The records search revealed that no paleontological resources are known to exist at the Project site. During the Project's construction phase, excavation of the Project site to approximately 30 feet below ground surface would occur to develop the proposed subterranean parking levels. According to the Geotechnical Report (refer to Appendix D) prepared for the Project, the first 5 to 10 feet of soils below ground surface are artificial fill materials underlain by alluvium. As such, the likelihood for paleontological resources to exist within the artificial fill would be remote. However, fossils have been found in the sedimentary deposits that exist within the Project area and at the Project site. As such, there is a possibility for unknown paleontological resources to be encountered within the underlying alluvium. Prior to Project construction, the prime contractor and any subcontractor(s) shall be advised of the legal and/or regulatory implications of knowingly destroying paleontological or unique geologic resources or sites from the Project site. In addition, in the event that paleontological resources or sites, or unique geologic features are exposed during Project construction, work within 50 feet of the find shall stop until a qualified paleontologist, can identify and evaluate the significance of the discovery and develop recommendations for treatment in conformance with California Public Resources Code Section

21083.2. Construction activities could continue in other areas of the Project site. Recommendations could include a preparation of a Treatment Plan, which could require recordation, collection, and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any paleontological resources or sites, or unique geologic features shall be treated in accordance with state law. Through compliance with these requirements, potential Project impacts to unknown paleontological resources or sites, or unique geologic features would be less than significant. No further analysis of this issue is required in the EIR.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. The Project site is developed with a surface parking lot and an 850 square foot restaurant. No human remains are known to exist at the Project site. In accordance with the State's Health and Safety Code Section 7050.5, in the event of discovery or recognition of any human remains at the Project site, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the Los Angeles County Coroner has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Through compliance with this regulation, potential Project impacts to human remains would be less than significant, and no further analysis of this issue is required in the EIR.

6. GEOLOGY AND SOILS

In 2015, the California Supreme Court in *CBIA v. BAAQMD*, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project. On the other hand, if a project exacerbates a condition in the existing environment, the lead agency is required to analyze that impact of that exacerbated condition on future residents and users of the project (as well as other impacted individuals).

a) **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

(i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?**

No Impact. Fault rupture is the displacement that occurs along the surface of a fault during an earthquake. The California Geological Survey (CGS) designates Alquist-Priolo Earthquake Fault Zones, which are regulatory zones around active faults. The Project site is not located within an Alquist-Priolo Earthquake Fault Zone, and no known faults exist on the Project site.⁷ The Elysian Park fault, located 1.4 miles from the site, is the closest fault to the site the Project site. Thus, the Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault on the Project site. Therefore, no significant impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

(ii) **Strong seismic ground shaking?**

Less Than Significant Impact. The Project site is located in a seismically active region. Known regional active faults that could produce significant ground shaking at the site include the Elysian Park, Puente Hills Blind Thrust, Santa Monica, Hollywood, Raymond, and Newport-Inglewood faults. These faults are located approximately 1.4, 3.8, 4.5, 4.6, 5.1, and 7.3 miles, respectively, from the Project site. Given the Project site's location in a seismically active region, the Project site could experience seismic groundshaking in the event of an earthquake. However, the Project Applicant would be required to design and construct the Project in conformance to the most recently adopted LAMC and applicable recommendations made in a Final Geotechnical Report prepared for the Project. (A preliminary Geotechnical Feasibility Report has been prepared for the Project. Refer to Appendix D.) Conformance with the City's current Building Code requirements would minimize the potential for structural failure, injury, and loss of life during an earthquake event and thus, not cause or accelerate geologic hazards or expose people to substantial risk of injury. Based on the above, development of the Project would not exacerbate seismic conditions and Project impacts related to groundshaking would be less than significant. No further analysis of this issue is required in the EIR.

⁷ *Geotechnical Feasibility Report, Proposed Residential Development, 348 South Hill Street, City of Los Angeles, California, Leighton and Associates, Inc., June 12, 2014. (Refer to Appendix D.)*

(iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Soil liquefaction is the loss of soil strength or stiffness due to a buildup of excess pore-water pressure during strong ground shaking. Review of the Seismic Hazard Zone Report for the Los Angeles Quadrangle indicates the northern half of the Project site is located within an area that has been identified by the State of California as being potentially susceptible to the occurrence of liquefaction and located within a liquefaction zone. However, as disclosed in the preliminary Geotechnical Feasibility Report (refer to Appendix D), borings encountered bedrock consisting of claystone/siltstone at depths of 15 to 20 feet below existing grade (above the historically high groundwater table of 20 to 40 feet).⁸ The bedrock is hard and not considered susceptible to liquefaction.

Construction of the Project will be subject to the City's current Building Code requirements, recommendations included in the Final Geotechnical Report, and the conditions contained within the City of Los Angeles Department of Building and Safety's Geology and Soils Approval Letter, which would minimize all potential impacts associated with liquefaction. As such, liquefaction potential for the Project site is considered low. Based on the above, development of the Project would not cause or exacerbate geologic hazards, including liquefaction. Therefore, Project impacts related to liquefaction would be less than significant. No further analysis of this issue is required in the EIR.

(iv) Landslides?

No Impact. Landslide potential is generally the greatest for areas with steep and/or high slopes, low shear strength, and increased water pressure. The Project site and adjacent properties are flat and do not contain any slopes or hillsides.⁹ Thus, the Project would not result in any impacts related to landslides. Based on the above, development of the Project would not cause or exacerbate geologic hazards, including landslides. No further analysis of this issue is required in the EIR.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. During the Project's construction phase, activities such as excavation, grading, and site preparation could leave soils at the Project site susceptible to soil erosion. The Project Applicant would be required to comply with SCAQMD Rule 403 – Fugitive Dust to minimize wind and water-borne erosion at the site, as well as prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities. The site-specific SWPPP would be prepared prior to earthwork activities and would be

⁸ *Ibid.*

⁹ *Ibid.*

implemented during Project construction. The SWPPP would include best management practices (BMPs) and erosion control measures to prevent pollution in storm water discharge. Typical BMPs that could be used during construction include good-housekeeping practices (e.g., street sweeping, proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.) and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). The SWPPP would be subject to review and approval by the City for compliance with the City's Development Best Management Practices Handbook, Part A, Construction Activities. Additionally, all Project construction activities would comply with the City's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Through compliance with these existing regulations, the Project would not result in any significant impacts related to soil erosion during the construction phase. Additionally, during the Project's operational phase, most of the Project site would be developed with impervious surface, and all stormwater flows would be directed to storm drainage features and would not come into contact with bare soil surfaces. Thus, no significant impacts related to erosion would occur as a result of Project operation. No further analysis of this issue is required in the EIR.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As discussed above, review of the Seismic Hazard Zone Report for the Los Angeles Quadrangle indicates the northern half of the Project site is located within an area that has been identified by the State of California as being potentially susceptible to the occurrence of liquefaction and located within a liquefaction zone. However, borings encountered bedrock consisting of claystone/siltstone at depths of 15 to 20 feet below existing grade (above the historically high groundwater table of 20 to 40 feet).¹⁰ The bedrock is hard and not considered susceptible to liquefaction. As such, liquefaction potential for the Project site is considered low. The preliminary Geotechnical Feasibility Report prepared for the Project includes lateral earth pressure estimates to be considered in the design of the retaining structures that would be part of the Project building. The Project Applicant would be required by the City of Los Angeles Department of Building and Safety, as part of the permitting process, to prepare (or have prepared) a Final Geotechnical Report that would address the building standards and recommendations that shall be followed in order to construct the proposed structure in accordance with building standards that apply to building within the types of soils found at the site, including areas prone to geologic or soil instability. Through compliance with the City's building code, recommendations included in the Final Geotechnical Report, and the conditions contained within the City

¹⁰ *Ibid.*

of Los Angeles Department of Building and Safety's Geology and Soils Approval Letter, impacts related to geologic and soil instability would be less than significant. Based on the above, development of the Project would not cause or exacerbate geologic hazards. No further analysis of this issue is required in the EIR.

d) Would the project be located on expansive soil, as identified on Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. According to the preliminary Geotechnical Feasibility Study prepared for the Project (refer to Appendix D), a representative sample of the near surface soil was subjected to Expansion Index testing to evaluate the expansive potential. The results of the testing indicate the soils at the Project site exhibit "low" expansion potential. In addition, the Project would be designed and constructed in conformance with the City's current Building Code requirements. Thus, the Project would not be constructed on expansive soil and would not create a substantial risk to individuals and/or property. Based on the above, development of the Project would not cause or exacerbate geologic hazards. Therefore, no impacts related to this issue would occur as a result of the Project, and no further analysis is required in the EIR.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Project would connect to the City's existing sewer system and would not require the use of septic tanks or alternative wastewater disposal systems. Thus, the Project would not result in any impacts related to soils that are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

7. GREENHOUSE GAS EMISSIONS

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. A greenhouse gas (GHG) is a gas that contributes to the greenhouse effect by absorbing infrared radiation. Various gases in the Earth's atmosphere, classified as atmospheric GHG emissions, play a critical role in determining the Earth's surface temperature. Solar radiation entering Earth's atmosphere is absorbed by the Earth's surface. When the Earth emits this radiation back toward space, the radiation changes from high-frequency solar radiation to lower-frequency infrared radiation. GHG emissions are transparent to solar radiation and absorb infrared radiation. As a result, radiation that otherwise would escape back into space is now retained, warming the atmosphere. This phenomenon is known as the greenhouse effect.

GHG emissions that contribute to the greenhouse effect include the following:

- Carbon Dioxide (CO₂) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. CO₂ emissions from motor vehicles occur during operation of vehicles and operation of air conditioning systems. CO₂ comprises over 80 percent of GHG emissions in California.¹¹
- Methane (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in solid waste landfills, raising livestock, natural gas and petroleum systems, stationary and mobile combustion, and wastewater treatment. Mobile sources represent 0.5 percent of overall methane emissions.¹²
- Nitrous Oxide (N₂O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. Mobile sources represent about 14 percent of N₂O emissions.¹³ N₂O emissions from motor vehicles generally occur directly from operation of vehicles.
- Hydrofluorocarbons (HFCs) are one of several high global warming potential (GWP) gases that are not naturally occurring and are generated from industrial processes. HFC (refrigerant) emissions from vehicle air conditioning systems occur due to leakage, losses during recharging, or release from scrapping vehicles at end of their useful life.
- Perfluorocarbons (PFCs) are another high GWP gas that are not naturally occurring and are generated in a variety of industrial processes. Emissions of PFCs are generally negligible from motor vehicles.
- Sulfur Hexafluoride (SF₆) is another high GWP gas that is not naturally occurring and are generated in a variety of industrial processes. Emissions of SF₆ are generally negligible from motor vehicles.

For most non-industrial development projects, motor vehicles make up the bulk of GHG emissions, particularly carbon dioxide, methane, nitrous oxide, and HFCs.¹⁴

¹¹ California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006, p. 11.

¹² United States Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2003*, April 2005 (EPA 430-R-05-003).

¹³ United States Environmental Protection Agency, *U.S. Adipic Acid and Nitric Acid N₂O Emissions 1990-2020: Inventories, Projections and Opportunities for Reductions*, December 2001.

¹⁴ California Air Resources Board, *Climate Change Emission Control Regulations*, 2004.

The Project's grading, construction, and operational activities (including both direct and indirect sources such as mobile sources, water use, solid waste, area sources, natural gas, and electricity use emissions) would generate GHG emissions and could impact the environment. To determine potential GHG impacts associated with the Project additional analysis of this issue is needed and will be addressed in the EIR.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. GHG emissions are addressed at the federal, state, and local level through a number of plans, policies, and regulations. The Project's grading, construction, and operational activities would generate GHG emissions and could have the potential to conflict with adopted plans, policies, or regulations related to reducing GHG emissions, such as Assembly Bill 32 and/or the City's Green Building Code. Therefore, this issue will be addressed in the EIR.

8. HAZARDS AND HAZARDOUS MATERIALS

In 2015, the California Supreme Court in *CBIA v. BAAQMD*, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project. On the other hand, if a project exacerbates a condition in the existing environment, the lead agency is required to analyze that impact of that exacerbated condition on future residents and users of the project (as well as other impacted individuals).

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. The types of hazardous materials that would be used during construction of the Project would be typical of those hazardous materials necessary for construction of a mixed-use development (e.g., paints, solvents, fuel for construction equipment, building materials, etc.). Although construction of the Project would require the routine transport, use, and disposal of hazardous waste, construction activities associated with Project would be required to comply with all applicable federal, state, and local regulations governing such activities. The existing 850-square-foot restaurant on the Project site was built in 1961, prior to the current asbestos and lead regulations, and thus could contain asbestos-containing materials (ACMs) and lead-based paint (LBP). Prior to the issuance of any demolition and/or alteration permits, the Project Applicant shall provide a letter to the City of Los Angeles Department of Building and Safety from a qualified asbestos abatement consultant indicating that no ACMs are present on the Project Site. If ACMs are discovered on site, during demolition or construction proper abatement regulations shall be followed. Because the Project would be required to comply with the SCAQMD Rule 1403, which regulates the removal of ACMs to ensure that asbestos fibers are not released into the air during demolition and/or renovation activities, as well as other applicable state and federal regulations, impacts from ACMs would be less than significant. Additionally, demolition and removal of the existing buildings would be required to comply with California Code of Regulations

(CCR) Title 8, Section 1532 et seq., which requires that all LBP be abated and removed by a licensed lead contractor. Standard handling and disposal practice shall be implemented pursuant to CALOSHA regulations. Prior to issuance of a demolition permit, a LBP survey shall be performed and approved by the City of Los Angeles Department of Building and Safety. Thus, construction of the Project would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant and no further analysis is required in the EIR.

The Project includes the development of 428 multi-family residential units and up to a maximum of 5,610 square feet of leasing office/neighborhood-serving retail. The types of hazardous materials that would be found on the Project site during the Project's operational phase would be typically associated with residential and retail land uses – paints, cleaning supplies, small amounts of petroleum products. The Project would not require routine transport, use, or disposal of hazardous materials that would create a significant hazard to the public or the environment. Therefore, impacts related to this issue would be less than significant. No further analysis of this issue is required in the EIR.

b) Would the project create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Potentially Significant Impact. A Phase I Environmental Site Assessment (ESA) and a Limited Phase II ESA were prepared for the Project site by Langan Engineering & Environmental Services (Langan). The Phase I ESA revealed evidence of recognized environmental concerns (RECs) in connection with the Project site. Thus, the potential to encounter RECs during the Project's construction phase will be further analyzed in the EIR.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The Project includes the development of 428 multi-family residential units and up to 5,610 square feet of leasing office/neighborhood-serving retail. The Green Dot Public School, located approximately 0.3 miles northeast of the Project Site, is the closest school to the Project site.

As discussed previously, the existing 850-square-foot restaurant on the Project site was built in 1961 and could contain ACMs and LBP. Prior to the issuance of any demolition and/or alteration permits, the Project Applicant shall provide a letter to the City of Los Angeles Department of Building and Safety from a qualified asbestos abatement consultant indicating that no ACMs are present on the Project Site. If ACMs are discovered on site during demolition or construction, proper abatement regulations shall be followed. Because the Project would be required to comply with SCAQMD Rule 1403, which regulates the removal of ACMs to ensure that asbestos fibers are not released into the air during demolition and/or renovation activities, as well as other applicable state and federal regulations, impacts from ACMs would

be less than significant. Further, demolition and removal of the existing buildings would be required to comply with CCR Title 8, Section 1532 et seq., which requires that all LBP be abated and removed by a licensed lead contractor. In addition, standard handling and disposal practice shall be implemented pursuant to CALOSHA regulations. Prior to issuance of a demolition permit, a LBP survey shall be performed and approved by the Department of Building and Safety.

As discussed above, under Checklist 8(a), operation of the Project would not require routine transport, use, or disposal of hazardous materials. Thus, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Therefore, impacts related to this issue would be less than significant. No further analysis of this issue is required in the EIR.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. California Government Code Section 65962.5 requires various state agencies, including but not limited to, the Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB), to compile lists of hazardous waste disposal facilities, unauthorized releases from underground storage tanks, contaminated drinking water wells and solid waste facilities where there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis. The Project site is not included on any list compiled pursuant to Government Code Section 65962.5.¹⁵¹⁶ Thus, construction and operation of the Project would not create a significant hazard to the public or the environment, as a result of being on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Based on the above, development of the Project would not cause or exacerbate a significant hazard to the public or the environment. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact. The Project site is not located within two miles of a public airport. The closest airport is the Bob Hope Airport located approximately 15.4 miles northwest of the site. Due to the height of the proposed building, the City would be required to send a copy of the Notice of Preparation

¹⁵ Department of Toxic Substances Control, *Envirostor*, <https://www.envirostor.dtsc.ca.gov>, March 21, 2016.

¹⁶ Department of Toxic Substances Control, *Geotracker*, <https://geotracker.waterboards.ca.gov>, January 24, 2017.

(NOP) to the Federal Aviation Administration (FAA) and would be required to file Form 7460 with the FAA, as well as obtain a Determination of No Hazard to Air Navigation from the FAA. The Determination of No Hazard to Air Navigation from the FAA would be submitted to the City of Los Angeles Department of Building and Safety prior to issuance of any building permits. Thus, the Project would not result in a safety hazard associated with an airport for people residing or working in the Project area. Based on the above, development of the Project would not have the potential to exacerbate current environmental conditions as to result in a safety hazard for people residing or working the Project area. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project site is not located within the vicinity of a private airstrip. The closest airport is the Bob Hope Airport located approximately 15.4 miles northwest of the site. Thus, the Project would not result in a safety hazard associated with an airport for people residing or working in the Project area. Based on the above, development of the Project would not have the potential to exacerbate current environmental conditions as to result in a safety hazard for people residing or working the Project area. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The Project could require temporary roadway lane closures and temporary closure of the alley that runs adjacent to the eastern boundary of the Project site. Additionally, as the structure would exceed 75 feet in height, potential impacts associated with the Project's height and limitations of emergency response equipment could occur.

However, prior to the issuance of a building permit, the Project Applicant would be required by the City of Los Angeles Fire Department (LAFD) and the City of Los Angeles Department of Building and Safety to develop an emergency response plan for the Project in consultation with the LAFD. The emergency response plan shall include but not be limited to the following: mapping of emergency exits, evacuation routes for vehicles and pedestrians, location of nearest hospitals, and fire departments. Preparation and implementation of the Project-specific emergency response plan would ensure that Project impacts related to emergency response would be less than significant. No further analysis of this issue is required in the EIR.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The Project is located in a highly urbanized area of the City that is not subject to wildland fires. Therefore, the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Based on the above, development of the Project would not have the potential to exacerbate existing environmental conditions so as to increase the potential to expose people or structures to significant risk of loss, injury or death involving wildland fires. No further analysis of this issue is required in the EIR.

9. HYDROLOGY AND WATER QUALITY

a) Would the project violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. A significant impact could occur if the Project discharges water that does not meet the quality standards of agencies that regulate surface water quality and water discharge into storm water drainage systems, or would not comply with all applicable regulations as governed by the Los Angeles Regional Water Quality Control Board (LARWQCB). The Project is a mixed-use development with 428 multi-family residential units and up to 5,610 square feet of leasing office/neighborhood-serving land uses.

During construction, groundwater dewatering would be required on the Project site and would occur in compliance with requirements of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2008-0032 National Pollutant Discharge Elimination System No. CAG994004) or subsequent permit. (No long-term dewatering would be required after Project buildout). However, during grading and excavation activities, stockpiled soils could be subject to erosion during precipitation events. Thus, Project-related construction activities could have the potential to impact stormwater runoff and water quality.

The Project would be required to comply with the NPDES General Construction Permit including the preparation of a SWPPP and implementation of BMPs, required to minimize soil erosion and sedimentation from entering the storm drains during the construction period. In addition, the Project would be subject to the City's Stormwater and Urban Runoff Pollution Control regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the Project site would be minimized for downstream receiving waters. Compliance with the NPDES and implementation of the SWPPP and BMPs, as well as the City's discharge requirements would ensure that construction stormwater runoff would not violate water quality and/or discharge requirements.

Stormwater runoff generated during operation of the Project has the potential to introduce small amounts of pollutants typically associated with mixed-use developments (e.g., household cleaners, landscaping pesticides, and vehicle petroleum products) into the stormwater system. Stormwater runoff from precipitation events could carry urban pollutants into municipal storm drains, however during operation the Project would be required to comply with the City's Low Impact Development (LID) Ordinance. The LID Ordinance applies to all development and redevelopment in the City that requires a building permit. LID Plans are required to include a site design approach and BMPs that address runoff and pollution at the source. Further, to comply with LID Ordinance the Project would be required to capture and treat the first 3/4-inch of rainfall in accordance with established stormwater treatment priorities. Compliance with the LID Ordinance would reduce the amount of surface water runoff leaving the Project Site as compared to the current conditions. Compliance with the LID Plan and Standard Urban Stormwater Mitigation Plan (SUSMP), including the implementation of BMPs, would ensure that operation of the Project would not violate water quality standard and discharge requirements or otherwise substantially degrade water quality.

Conformance with these regulations would ensure construction and operational activities would result in less-than-significant impacts and would not violate water quality standards, waste discharge requirements, or otherwise substantially degrade water quality. No further analysis of this issue is required in the EIR.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No Impact. The Project site is developed with a surface parking lot and an 850-square-foot restaurant. There are no permeable surfaces on the Project site. During a storm event stormwater runoff flows to the adjacent roadways where it is directed into the City's storm drain system. As such, the Project site is not a source of groundwater recharge. Following redevelopment of the Project site, groundwater recharge would remain negligible, similar to existing conditions.

The regional aquifer in the Los Angeles Basin that is a supply of drinking water for the region is located anywhere from approximately 300 to 1,000 feet below the surface of the Project site.¹⁷ The Project includes excavation to approximately 30 below ground surface. Groundwater encountered within this depth would be perched groundwater, which is isolated groundwater trapped within soil or rock.¹⁸

¹⁷ Sarah L. Denton, PG, CHG, CEM, Senior Associate, Blackstone Consulting, LLC, telephone conversation, April 13, 2016.

¹⁸ *Ibid.*

Perched groundwater is typically of poor water quality, because of its inability to flow and filter. Perched groundwater at the Project site would be pumped from the ground and removed from the site in accordance with applicable LARWQCB requirements, as discussed above. (No long-term dewatering would be required after Project buildout.) Additionally, all water consumption associated with the Project would be supplied by the Metropolitan Water District (MWD) and not from groundwater beneath the Project site. Thus, there would be no impact to groundwater supplies. No further analysis of this issue is required in the EIR.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. A significant impact could occur if the Project substantially altered the drainage pattern of the site or an existing stream or river, so that substantial erosion or siltation would result on-or off-site. The Project site is located in a highly urbanized area of the City. There are no natural watercourses on the Project site or in the vicinity of the site. As discussed above, the Project site is developed with paved surfaces and current stormwater runoff flows to the local storm drain system

The Project Applicant would be required to prepare a SWPPP and implement BMPs to reduce runoff and preserve water quality during construction of the Project. While grading and construction activities may temporarily alter the existing drainage patterns of the site, BMPs would be implemented to minimize soil erosion impacts during Project grading and construction activities.

In addition, the Project would be required to implement a LID Plan (during operation), which would reduce the amount of surface water runoff leaving the Project Site after a storm event. Specifically, the LID Plan would require the implementation of stormwater BMPS to retain or treat the runoff from a storm event producing 3/4-inch of rainfall in a 24-hour period. Therefore, the Project would result in a less than significant impact in relation to surface water hydrology and would not result in substantial erosion or siltation on- or off-site. No further analysis of this issue is required in the EIR.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. A significant impact could occur if the Project resulted in increased surface water runoff volumes during construction, or if operation of the Project would result in flooding conditions affecting the Project site or nearby properties. Grading and construction activities on the Project Site may temporarily alter the existing drainage patterns of the site and reduce off-site flows. However, construction and operation of the Project would not result in a significant increase in site runoff or any changes in the local drainage patterns that would result in flooding on- or off-site. The Project would be required to prepare a SWPPP and implement BMPs to reduce runoff and preserve water quality during construction of the Project. Compliance with the LID Ordinance would also reduce the amount of

surface water runoff leaving the Project Site as compared to the current conditions. Impacts would be less than significant, and no further evaluation of this issue is required in the EIR.

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. A significant impact could occur if the Project would increase the volume of stormwater runoff to a level that exceeds the capacity of the storm drain system serving the Project Site, or if the Project would introduce substantial new sources of polluted runoff. Runoff from the Project site currently is and would continue to be collected on the site and directed towards existing storm drains in the Project vicinity that have adequate capacity to serve the site. Currently, drains and catch basins maintained by the City are located on Hill Street, adjacent to the Project site's southwestern boundary. Pursuant to local practice and City policy, stormwater retention would be required as part of the LID/SUSMP implementation features (despite no increase of imperviousness surfaces on the site). Any contaminants gathered during routine cleaning of construction equipment would be disposed of in compliance with applicable stormwater pollution prevention permits. Further, pollutants from the subterranean parking garage and surface parking lot would be subject to the requirements and regulations of the NPDES and applicable LID Ordinance requirements. Accordingly, the Project would be required to demonstrate compliance with LID Ordinance standards and retain or treat the first three-quarters inch of rainfall in a 24-hour period. The Project would not create or contribute surface runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant and no further evaluation is required in the EIR.

f) Would the project otherwise substantially degrade water quality?

Less Than Significant Impact. As discussed previously, during construction, groundwater dewatering would be required on the Project site and would occur in compliance with requirements of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2008-0032 National Pollutant Discharge Elimination System No. CAG994004) or subsequent permit. (No long-term dewatering would be required after Project buildout.) In addition, during grading and excavation activities, stockpiled soils could be subject to erosion during precipitation events. Thus, Project-related construction activities could have the potential to impact stormwater runoff and water quality.

The Project would be required to comply with the NPDES General Construction Permit including the preparation of a SWPPP and implementation of BMPs, required to minimize soil erosion and sedimentation from entering the storm drains during the construction period. In addition, the Project would be subject to the City's Stormwater and Urban Runoff Pollution Control regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the Project site would be minimized for downstream receiving waters. Compliance with the NPDES and implementation of the SWPPP and

BMPs, as well as the City's discharge requirements would ensure that construction stormwater runoff would not violate water quality and/or discharge requirements. Construction related impacts would be less than significant.

Stormwater runoff generated during operation of the Project has the potential to introduce small amounts of pollutants typically associated with mixed-use developments (e.g., household cleaners, landscaping pesticides, and vehicle petroleum products) into the stormwater system. Stormwater runoff from precipitation events could carry urban pollutants into municipal storm drains, however during operation the Project would be required to comply with the City's LID Ordinance. The LID Ordinance applies to all development and redevelopment in the City that requires a building permit. LID Plans are required to include a site design approach and BMPs that address runoff and pollution at the source. Further, to comply with LID Ordinance the Project would be required to capture and treat the first 3/4-inch of rainfall in accordance with established stormwater treatment priorities. Compliance with the LID Ordinance would reduce the amount of surface water runoff leaving the Project Site as compared to the current conditions. Compliance with the LID Plan and SUSMP, including the implementation of BMPs, would ensure that operation of the Project would not violate water quality standard and discharge requirements or otherwise substantially degrade water quality. Impacts would be less than significant. No further evaluation of this issue is required in the EIR.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The Project site is located in an area of minimal flood risk (Zone X) and is not located within a 100-year zone, as mapped by the Federal Emergency Management Agency (FEMA).¹⁹ Thus, the Project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As discussed above, the Project site is not located within a 100-year flood hazard area.²⁰ Thus, the Project would not place housing within a 100-year flood hazard area and structures would not

¹⁹ FEMA,
<https://msc.fema.gov/portal/search?AddressQuery=350%20Hill%20street%2C%20los%20angeles%2C%20ca#searchresultsanchor>, effective on 9-26-2008; and City of Los Angeles General Plan Safety Element, Exhibit F.

²⁰ Ibid.

impede or redirect flood flows. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The Project site is not located in any area susceptible to floods associated with a levee or dam.²¹ Therefore, the Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. No further analysis of this issue is required in the EIR.

j) Would the project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant disturbance undersea, such as a tectonic displacement of sea floor associated with large, shallow earthquakes. Mudflows occur as a result of downslope movement of soil and/or rock under the influence of gravity. The Project site is not in an area susceptible to seiches, tsunamis, or mudflows, because the Project site is not located in proximity to any large bodies of water and is not located near any hillsides. Therefore, the Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. No further analysis of this issue is required.

10. LAND USE AND PLANNING

a) Would the project physically divide an established community?

No Impact. The Project site is located in an urbanized area of the City in the Central City Community Plan Area. The Project site is currently developed with a 109 space surface parking lot and an 850 square foot restaurant, and is surrounded by existing development and roadways. The Project would not create a physical barrier causing an impediment to travel or access the area surrounding the Project site. Rather, the Project includes removal of the existing land uses from the Project site and development of the site with residential and commercial land uses. Thus, the Project would not physically divide, disrupt, or isolate an established community. Therefore, no impacts related to this issue would occur. No further analysis of this issue is required in the EIR.

²¹ Los Angeles General Plan Safety Element, Exhibit G, Inundation and Tsunami Hazard Areas.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Potentially Significant Impact. The Project site is zoned C2-4D (Commercial Zone, Height District 4, Development Limitations) and is located within the Regional Center Commercial General Plan land use designation in the Central City Community Plan area. The Project is consistent with the existing zoning and land use designation. In accordance with LAMC Section 16.05, the Project would require approval of Site Plan Review findings, and in accordance with LAMC Section 17.50, would require issuance of a Certificate of Compliance. However, the Project would be subject to several land use related plans, policies, and regulation associated with development of the Project site, including (but not limited to) the Southern California Association of Governments' (SCAG) Compass Blueprint Report, 2008 Regional Comprehensive Plan (2008 RCP), and 2016-2040 Regional Transportation Plan/Sustainable Communities (2016-2040 RTP/SCS); the City's General Plan; the Central City Community Plan; and the Downtown Design Guidelines. Thus, this issue will be further analyzed in the EIR.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The Project site is located in an urbanized area of the City and developed with a surface parking lot and an 850-square-foot restaurant. The Project site does not support any natural habitat and/or natural community. There are no SEAs and/or other biological resources on and/or near the Project site.²² Thus, development of the Project site is not subject to any applicable habitat conservation plan or natural community conservation plan. The Project would not conflict with any applicable habitat conservation plan or natural community conservation plan. No further analysis of this issue is required in the EIR.

11. MINERAL RESOURCES

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Project site is located in an urbanized area of the City. There are no known mineral resources on the Project site or in the vicinity.²³ Thus, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

²² City of Los Angeles General Plan Conservation Element, Exhibit B2.

²³ City of Los Angeles General Plan, Conservation Element, Exhibit A.

Therefore, no impacts related to issue would occur. No further analysis of this issue is required in the EIR.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The Project site is located in an urbanized area of the City. The Project site is not identified as a mineral resource recovery site.²⁴ Thus, the Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Therefore, no impacts related to issue would occur. No further analysis of this issue is required in the EIR.

12. NOISE

In 2015, the California Supreme Court in *CBIA v. BAAQMD*, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project. On the other hand, if a project exacerbates a condition in the existing environment, the lead agency is required to analyze that impact of that exacerbated condition on future residents and users of the project (as well as other impacted individuals).

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. The Project site is located in an urbanized area of the City and is exposed to various types and levels of noise. Vehicles travelling along the surrounding roadways create the most predominate source of noise in the vicinity of the Project site. Existing on-site noise sources include vehicles arriving and exiting the Project site, car doors opening and closing, and other human activity. Construction equipment used during construction of the Project and haul trucks travelling to and from the Project site would generate additional noise as compared to existing conditions. In addition, during operation of the Project, vehicle trips, mechanical equipment, and individuals using the open space areas could increase the noise levels in excess of the City noise standards. Thus, construction and operational activities associated with the Project would create noise that could exceed applicable standards. Therefore, a noise study will be completed for the Project, and this issue will be further analyzed in the EIR.

²⁴ *Ibid.*

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Grading and excavation activities, haul trucks travelling to and from the site, and demolition of the existing 850-square-foot restaurant and surface parking lot would generate groundborne vibration and noise levels. The increase in groundborne vibration and noise levels could impact the residential uses to the southwest, as well as other surrounding sensitive uses. Therefore, this issue will be further analyzed in the EIR.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Operation of the Project would result in new noise sources, including vehicles entering and exiting the parking garage, mechanical equipment (e.g., HVAC equipment), use of outdoor open space, and operation of the ground floor commercial uses. While operational activities associated with the Project would create on-going noise that could exceed the existing noise levels, the analysis will determine if the new on-going noise sources would exceed the applicable noise standards. Therefore, this issue will be further analyzed in the EIR.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Demolition of the existing uses on the Project site and construction of the Project would result in a temporary increase in noise levels in the surrounding area. Therefore, this issue will be addressed in the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The closest airport to the Project site is the Bob Hope Airport located approximately 15.4 miles northwest of the site. Based on the above the Project would not exacerbate the existing airport noise conditions so as to expose people residing or working in the Project area to excessive noise levels. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels and no impact would occur. No further analysis of this issue is required in the EIR.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not located in the vicinity of a private airstrip. Thus, the Project would not exacerbate the existing airport noise conditions so as to expose people residing or working in the Project area to excessive noise levels. No impact would occur and no further analysis of this issue is required in the EIR.

13. POPULATION AND HOUSING

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Potentially Significant Impact. A significant impact could occur if the Project would locate new development such as homes, businesses, and/or infrastructure, with the effect of substantially inducing growth in the proposed area that would otherwise not have occurred as rapidly or in as great a magnitude. Based on the L.A. CEQA Thresholds Guide the determination of whether a project results in a significant impact on population and housing growth considers (a) the degree to which a project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of project occupancy, and would result in an adverse physical change in the environment; (b) whether the project would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan; and (c) the extent to which growth would occur without implementation of the Project.

The Project site is located within SCAG's jurisdiction. SCAG's mandated responsibilities include development plans and policies with respect to the region's population growth, transportation programs, air quality, housing, and economic development. In October 2008, SCAG approved and adopted the 2008 RCP for the SCAG Region—Helping Communities Achieve a Sustainable Future. The 2008 RCP is a long-term comprehensive plan that provides a strategic vision for handling the region's land use, housing, economic, transportation, environmental, and overall quality-of-life needs. The 2008 RCP was intended to serve as an advisory document for local agencies in the SCAG region. In April 2016, SCAG adopted 2016 RTP/SCS. The 2016 RTP/SCS is an update to the 2012–2035 RTP/SCS that reflects changes in economic, policy, and demographic conditions. The goals of the 2016 RTP/SCS have remained unchanged from the goals presented in the 2012–2035 RTP/SCS. However, since the adoption of the 2012–2035 RTP/SCS, the development of the 2016 RTP/SCS has been influenced by (1) a surface and transportation funding and authorization bill known as the Moving Ahead for Progress in the 21st Century Act (MAP-21), which was signed into law on July 6, 2012; (2) the rapid advancement of new technologies that encourage more efficient transportation choices, such multimodal transportation systems; and (3) the continuing emphasis on the reduction of greenhouse gas emissions as a result of the

April 29, 2015, Executive Order B-30-15, which establishes a statewide greenhouse gas reduction target of 40 percent (below 1990 levels) by 2030.

The Project includes the development of 428 multi-family residential units and up to a maximum of 5,610 square feet of leasing office/neighborhood-serving retail. As the Project is an infill development, the Project would not have indirect effects on growth through the extension of roadways and infrastructure. However, the Project would introduce new residential units and employment opportunities. As such, the consistency of the Project's residential and employment growth with SCAG growth projections, as well as consistency with regional and local growth policies, including the City's General Plan and City Central Community Plan will be addressed in the EIR.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. No housing exists on the Project site. The Project site is currently developed with a 109 space surface parking lot and an 850-square-foot restaurant. The Project would not displace any existing housing, necessitating the construction of replacement housing elsewhere. The Project would provide 428 new residential multi-family units. Thus, no impact would occur. No further analysis of this issue is required in the EIR.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site is not developed with any residential units. Therefore, the Project would not displace any residents, necessitating the construction of replacement housing elsewhere. Thus, no impact would occur. No further analysis of this issue is required in the EIR.

14. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objective for any of the following public services:

(i) Fire protection?

Potentially Significant Impact. The LAFD provides fire and emergency medical protection services to the Project site. The Project site is currently developed with a surface parking lot and an 850-square-foot restaurant. The Project would result in the construction of 428 residential multi-family units and up to a maximum of 5,610 square feet of leasing office/neighborhood-serving retail. The Project would increase

the number of residents and employees in the Project area and could increase the demand for fire protection services at the Project site. Therefore, this issue will be further analyzed in the EIR.

(ii) Police protection?

Potentially Significant Impact. The Los Angeles Police Department (LAPD) provides police protection services to the Project site. As discussed above, the Project would increase the number of residents and employees in the Project area. Implementation of the Project could result in an increase in calls for police protection. Therefore, this issue will be further analyzed in the EIR.

(iii) Schools?

Potentially Significant Impact. The Project site is located within the boundaries of the Los Angeles Unified School District (LAUSD). The Project would result in the construction of 428 new multi-family residential units. Thus, operation of the Project would increase the number of students attending the surrounding elementary, middle, and high schools. Therefore, this issue will be further analyzed in the EIR.

(iv) Parks?

Potentially Significant Impact. The Los Angeles Department of Recreation and Parks (LADRP) operates and maintains park and recreational services and facilities in the Project area. Although the Project would include recreation amenities including 47,151 square feet of open space, implementation of the Project would increase the residential population and could lead in an increase in usage of the surrounding park and recreational facilities. Therefore, this issue will be further analyzed in the EIR.

(v) Other public facilities?

Libraries

Potentially Significant Impact. Library services are provided by the Los Angeles Public Library (LAPL). The increase in residential population associated with the Project could increase the demand for library resources and facilities. Therefore, this issue will be further analyzed in the EIR.

No other public services would be impacted by the Project.

15. RECREATION

a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Potentially Significant Impact. See response to Checklist Question 14(iv), above. The Project would increase the residential population in the Project area and would increase the demand for parks and recreational services. Therefore, this issue will be further addressed in the EIR.

b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Less Than Significant Impact. The Project includes development of private and public open space areas including, individual balconies, a pool court, and sky deck and lounge that are inclusive of the mixed-use development and are required to meet the City's open space requirement. The assessment of impacts associated with development of these open space facilities is inclusive of the assessment of impacts associated with the Project in its entirety. No direct significant impacts would occur as a result of development of the open space facilities. No further analysis of this issue is required in the EIR.

16. TRANSPORTATION/TRAFFIC

a) **Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Potentially Significant Impact. The Project would result in the construction of 428 residential multi-family units and up to a maximum of 5,610 square feet of leasing office/neighborhood-serving retail. Operation of the Project would permanently increase vehicle, pedestrian, bicycle, and public transit trips throughout the Project area and on the surrounding roadways. In addition, vehicles traveling on the surrounding roadways could be affected during construction of the Project due to haul trucks travelling to and from the Project site, as well as temporary lane closures. A traffic study will be prepared for the Project. The findings and conclusions of the traffic study will be disclosed in the EIR.

b) **Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the count congestion management agency for designated roads or highways?**

Potentially Significant Impact. Traffic analyses for projects located in Los Angeles County are required to comply with the Los Angeles County Congestion Management Program (CMP), a state-mandated

program designed to address the impacts urban congestion can create on local roadways and the region as a whole. Vehicle trips would be generated to and from the Project site during construction and operation of the Project. The degree to which the Project would affect CMP facilities will be further analyzed in the EIR.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The Project includes development of a mixed-use building, reaching approximately 410 feet in height. The Project's building height would be similar to that of existing buildings located in the downtown area. The Project site is not located near any airports; the nearest airport is Bob Hope Airport, 15.4 miles away. Due to the height of the proposed building, the City would be required to send a copy of the NOP to the FAA and would be required to file Form 7460 with the FAA and would be required to obtain a Determination of No Hazard to Air Navigation from the FAA that would be required to be submitted to the Department of Building and Safety prior to issuance of any building permits. Thus, the Project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Therefore, no impacts related to this issue would occur. No further analysis is required in the EIR.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The Project does not include development of any new roadways or intersections. Vehicular access to the Project site would be provided via two driveways and an existing alley. Both driveways are proposed in locations where driveways currently serve the existing surface parking lot. The first driveway is located on Hill Street, approximately 160 feet north of 4th Street. Vehicles entering the site while travelling southbound on Hill Street would be able to turn left into Driveway 1 via an existing two-way left turn lane. Vehicles exiting Driveway 1 would be able to turn left or right onto Hill Street. The second driveway, Driveway 2, would be located on 4th Street, approximately 135 feet east of Hill Street and 175 feet west of Broadway. Fourth Street is a one-way street carrying eastbound traffic only. Driveway 2 would be accessed via left turns in and left turns out only. All ingress/egress points associated with the Project would be designed and constructed in accordance with the requirements of the City's Department of Building and Safety, the City's Department of Public Works, and the Los Angeles Department of Transportation (LADOT). Therefore, Project impacts related to roadway hazards would be less than significant. No further analysis of this issue is required in the EIR.

e) Would the project result in inadequate emergency access?

Potentially Significant Impact. During Project construction, temporary vehicle lane closures could impact emergency access. In addition, haul trucks travelling to and from the Project site could impact the capacity of the surrounding roadways. Therefore, this issue will be further analyzed in the EIR.

f) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Potentially Significant Impact. The Project site is served by public transit, nearby bicycle infrastructure, and is located in an area frequented by pedestrians. The proposed mixed-use development would be located immediately adjacent to the Metro Red and Purple light rail lines Pershing Square subway station. In addition, Metro Local, Rapid, and Expresses buses serve the Project site. A total of 475 (43 short-term and 428 long-term) bicycle parking spaces would be provided on the Project site. The Project will be analyzed for consistency with the applicable adopted policies, plans, and programs supporting alternative transportation, including the Los Angeles General Plan Mobility Plan 2035. Therefore, this issue will be further analyzed in the EIR.

17. TRIBAL CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native tribe, and that is:

- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**

Less Than Significant Impact. The Project site is currently developed with a restaurant building and surface parking. No significant tribal cultural resources are known to exist at the Project site. As discussed in response to Checklist Question 5(b), based on a records search conducted by the South Central Coast Information Center, 11 archaeological sites have been recorded within a 0.5-mile radius of the Project site, and no sites have been recorded at the Project site; no resources have been identified at the Project site (refer to Appendix C). During the Project's construction phase, excavation of the Project site to approximately 30 feet below ground surface would occur to develop the proposed subterranean parking levels. According to the Geotechnical Report (refer to Appendix D) prepared for the Project, the first 5 to 10 feet of soils below ground surface are artificial fill materials underlain by alluvium. As such, the likelihood for archaeological resources to exist within the artificial fill would be remote. However, it is possible that unknown archaeological resources could exist at the Project site that could be encountered within the underlying alluvium, given the relative sensitivity of the Project region. As such, prior to Project construction, the prime contractor and any subcontractor(s) shall be advised of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the Project site. In addition, in the event that buried archaeological resources are exposed during Project construction, work within 50 feet of the find shall stop until a professional archaeologist, meeting the standards of the Secretary of the Interior, can identify and evaluate the significance of the discovery and develop recommendations for treatment, in

conformance with California Public Resources Code Section 21083.2. Construction activities could continue in other areas of the Project site. Recommendations could include preparation of a Treatment Plan, which could require recordation, collection and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any Native American remains shall be treated in accordance with state law. Through compliance with these existing regulations, potential Project impacts to unknown archaeological resources would be less than significant. No further analysis of this issue is required in the EIR.

- ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

Potentially Significant Impact. Approved by Governor Brown on September 25, 2014, Assembly Bill 52 (AB 52) establishes a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in Public Resources Code Section 21074, as part of CEQA. Effective July 1, 2015, AB 52 applies to projects that file a Notice of Preparation or Notice of Negative Declaration/Mitigated Negative Declaration on or after July 1, 2015. As specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the tribe has submitted a written request to be notified. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Any information gained during the consultation process will be used to analyze impacts to tribal cultural resources in the EIR. The existence of tribal cultural resources on the Project Site is currently unknown. Therefore, this topic will be analyzed further in an EIR to determine the potential for, and significance of, tribal cultural resources.

18. UTILITIES AND SERVICE SYSTEMS

- a) Would the project exceed wastewater treatment requirements of the applicable regional water quality control board?**

Potentially Significant Impact. The Project site is located within the service area of the Hyperion Treatment Plant (HTP), which has been designed to treat 450 million gallons per day (mgd) of full secondary treatment. Full secondary treatment prevents virtually all particles suspended in the effluent from being discharged into the Pacific Ocean and is consistent with the Los Angeles Regional Water Quality Control Board (LARWQCB) discharge policies for the Santa Monica Bay. The HTP currently treats an average daily flow of approximately 362 mgd and thus, is operating below its design capacity. The Project would increase the amount of wastewater generated at the Project site and would increase the need for wastewater treatment. Therefore, this issue will be further analyzed in the EIR.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Potentially Significant Impact. The Los Angeles Department of Water and Power (LADWP) owns and operates the Los Angeles Aqueduct Filtration Plant (LAAFP) located in the Sylmar community of the City. The LAAFP treats City water prior to distribution throughout LADWP's Central Water Service Area. The designated treatment capacity of the LAAFP is 600 mgd, with an average plant flow of 550 mgd during the summer months and 450 mgd during the remaining months of the year. Thus, the facility has between 50 to 150 mgd of remaining capacity depending on the season. As discussed above, wastewater generated on the Project site would be treated at the HTP. The Project would increase the amount of wastewater generated and water consumed at the Project site and would increase the need for wastewater and water treatment. Therefore, this issue will be further analyzed in the EIR.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. As discussed in response to Checklist Question 9e, no further analysis of this issue is required in the EIR.

d) Would the project have significant water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Potentially Significant Impact. The LADWP provides water supply to the Project site. The Project would increase the need for water supply at the Project site. Analysis included in the Draft EIR will evaluate the Project's water demand with the City's existing and projected water supply. This issue will be further analyzed in the EIR.

e) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially Significant Impact. As discussed under Checklist Question 18b above, the Project would increase the amount of wastewater generated at the Project site and would increase the need for wastewater treatment. Therefore, this issue will be further analyzed in the EIR.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Potentially Significant Impact. A significant impact could occur if the Project were to increase solid waste generation to a degree such that the existing and projected landfill capacity would be insufficient to

accommodate the additional solid waste. Based on the L.A. CEQA Thresholds Guide, the determination of whether a project results in a significant impact on solid waste shall be made considering the following factors: (a) amount of projected waste generation, diversion, and disposal during demolition, construction, and operation of the Project, considering proposed design and operational features that could reduce typical waste generation rates; (b) need for additional solid waste collection route, or recycling or disposal facility to adequately handle project-generated waste; and (c) whether the Project conflicts with solid waste policies and objectives in the Source Reduction and Recycling Element (SRRE) or its updates, the Solid Waste Management Policy Plan (CiSWMPP), Framework Element of the Curbside Recycling Program, including consideration of the land use-specific waste diversion goals contained in Volume 4 of the SRRE.

Solid waste generated in the City is disposed of at various landfill facilities located throughout Los Angeles County. Compared to existing conditions, the Project would generate additional solid waste from demolition debris, site preparation, and construction activities, as well as during operation of the Project. Solid waste generated during construction and operation of the Project would be disposed of in various landfills. Further, the projected growth anticipated with operation of the Project could potentially impact solid waste disposal services and the capacity of landfill facilities. Existing landfill capacity in the region and potential project impacts on landfill capacity will be analyzed further in the EIR.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. A significant impact could occur if the Project were to generate solid waste that was not disposed of in accordance with applicable regulations. State regulation, AB 939 required every city and county to divert 50 percent of its waste from landfills by the year 2000 through such means as recycling, source reduction, and composting.⁵¹ In addition, AB 939 requires each county to prepare a countywide siting element for a 15-year period, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the county that cannot be reduced or recycled. Further, AB 1327, the California Solid Waste Reuse and Recycling Access Act of 1991, requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects.⁵²

The Project would generate solid waste during both construction and operation that is typical of the development of an infill mixed-use project. The Project would fully comply with all federal, state, and local statutes and regulations regarding proper disposal. Impacts would be less than significant, and no further evaluation is required in the EIR.

Appendix F, Energy Conservation, of the CEQA Guidelines will also be addressed in the EIR.

19. MANDATORY FINDINGS OF SIGNIFICANCE

a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

Potentially Significant Impact. As discussed under Environmental Factor 4 (Biological Resources), the Project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal. As discussed under Environmental Factor 5 (Cultural Resources) and 17 (Tribal Cultural Resources), the Project could have the potential to eliminate important examples of the major periods of California history or prehistory. For this reasons, an EIR will be prepared for the Project.

b) **Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Potentially Significant Impact. For the reasons stated in this Initial Study, the Project could result in significant impacts to air quality, historical resources, GHG emissions, hazards and hazardous materials, land use and planning, noise, population and housing, public services, recreation, transportation/traffic, tribal cultural resources, and utilities and service systems. Environmental issues for which potentially significant impacts have been identified in this Initial Study will also be analyzed for cumulative impacts in the Draft EIR.

c) **Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?**

Potentially Significant Impact. For the reasons stated in this Initial Study, the Project could result in potentially significant impacts related to air quality, historical resources, GHG emissions, hazards and hazardous materials, land use and planning, noise, population and housing, public services, recreation, transportation/traffic, tribal cultural resources, and utilities and service systems. These impacts could result in direct and/or indirect substantial adverse effects on human beings. Therefore, these potential impacts will be further analyzed in the Draft EIR.

V. PREPARERS OF THE INITIAL STUDY AND PERSONS CONSULTED

Lead Agency

City of Los Angeles
Department of City Planning
200 North Spring Street, Room 750
Los Angeles, California 90012
Kathleen King, Planning Assistant

Project Applicant

EQR 4th and Hill LP
6100 Center Drive, Suite 750
Los Angeles, CA 90045
Allison A. Geiman, Development Director

CEQA Consultant

CAJA Environmental Services, LLC
11990 San Vicente Boulevard, Suite 200
Los Angeles, California 90049
Chris Joseph, Principal
Kerrie Nicholson, Senior Project Manager
Sherrie Cruz, Senior Graphics Specialist

Applicant Engineer

KHR Associates
4100 Newport Place Drive
Newport Beach, CA 92660
Gabe Uribe

Applicant Architect

TCA Architects
19782 MacArthur Boulevard
Irvine, CA 92612
Frank Pasker

Applicant Planning Consultant

Craig Lawson & Co., LLC
8758 Venice Boulevard, #200
Los Angeles, CA 90034
Jim Ries

Environmental Consultant

Langan Engineering & Environmental Services
32 Executive Park, Suite 130
Irvine, CA 92614
Jeffery Ludlow, PG, CHG, Principal/Vice President
Keith Gilbert, PG, Senior Project Manager

Geotechnical Consultant

Leighton and Associates, Inc.
17781 Cowan
Irvine, CA 92614
Djan Chandra, PE, GE, Senior Principal Engineer

APPENDICES

Appendix A:	Zoning Information File No. 2452
Appendix B:	Tree Report
Appendix C:	Cultural Resources Documentation
Appendix D:	Geotechnical Report

APPENDIX A

ZONING INFORMATION FILE NO. 2452

**CITY OF LOS ANGELES
DEPARTMENT OF CITY PLANNING
ZONING INFORMATION FILE**

ZI NO. 2451

**TRANSIT PRIORITY AREAS (TPAs) / EXEMPTIONS TO AESTHETICS AND PARKING
WITHIN TPAs PURSUANT TO CEQA**

CITYWIDE

COMMENTS:

On September 2013, the Governor signed into law Senate Bill (SB) 743, which instituted changes to the California Environmental Quality Act (CEQA) when evaluating environmental impacts to projects located in areas served by transit. While the thrust of SB 743 addressed a major overhaul on how transportation impacts are evaluated under CEQA, it also limited the extent to which aesthetics and parking are defined as impacts under CEQA. Specifically, Section 21099 (d)(1) of the Public Resources Code (PRC) states that a project's aesthetic and parking impacts shall not be considered a significant impact on the environment if:

1. The project is a residential, mixed-use residential, or employment center project, and
2. The project is located on an infill site within a transit priority area.

Section 21099 (a) of the PRC defines the following terms:

(1) "Employment center project" (TPAs) means a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area.

(4) "Infill site" means a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

(7) "Transit priority area" means an area within one-half mile of a major transit stop that is existing or planned. Section 21064.3 of the PRC defines a "major transit stop" as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. For purposes of Section 21099 of the PRC, a transit priority area also includes major transit stops in the City of Los Angeles (city) that are scheduled to be completed within the planning horizon of the Southern California Association of Governments (SCAG) Regional Transportation Plan / Sustainable Community Strategy (RTP/SCS).

While the Governor's Office of Planning and Research (OPR) is still in the process of drafting guidance to substantially revise transportation impact methodology for infill projects, the elimination of aesthetics and parking for infill projects went into effect January 2014. No further action is needed for the elimination of aesthetics and parking for infill projects, defined herein to take effect as part of the City's impact evaluations pursuant to CEQA.

INSTRUCTIONS:

Visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City's CEQA Threshold Guide shall not be considered an impact for infill projects within TPAs (shown in the attached map) pursuant to CEQA. However, this law did not limit the ability of the City to regulate, or study aesthetic related impacts pursuant to other land use regulations found in the Los Angeles Municipal Code (LAMC), or the City's General Plan, including specific plans. For example, DCP staff would still need to address a project's shade and shadow impacts if it is expressly required in a specific plan, Community Design Overlays (CDOs), or Historic Preservation Overlay Zones (HPOZs). Also note that the limitation of aesthetic impacts pursuant to Section 21099 of the PRC does not include impacts to historic or cultural resources. Impacts to historic or cultural resources will need to be evaluated pursuant to CEQA regardless of project location.

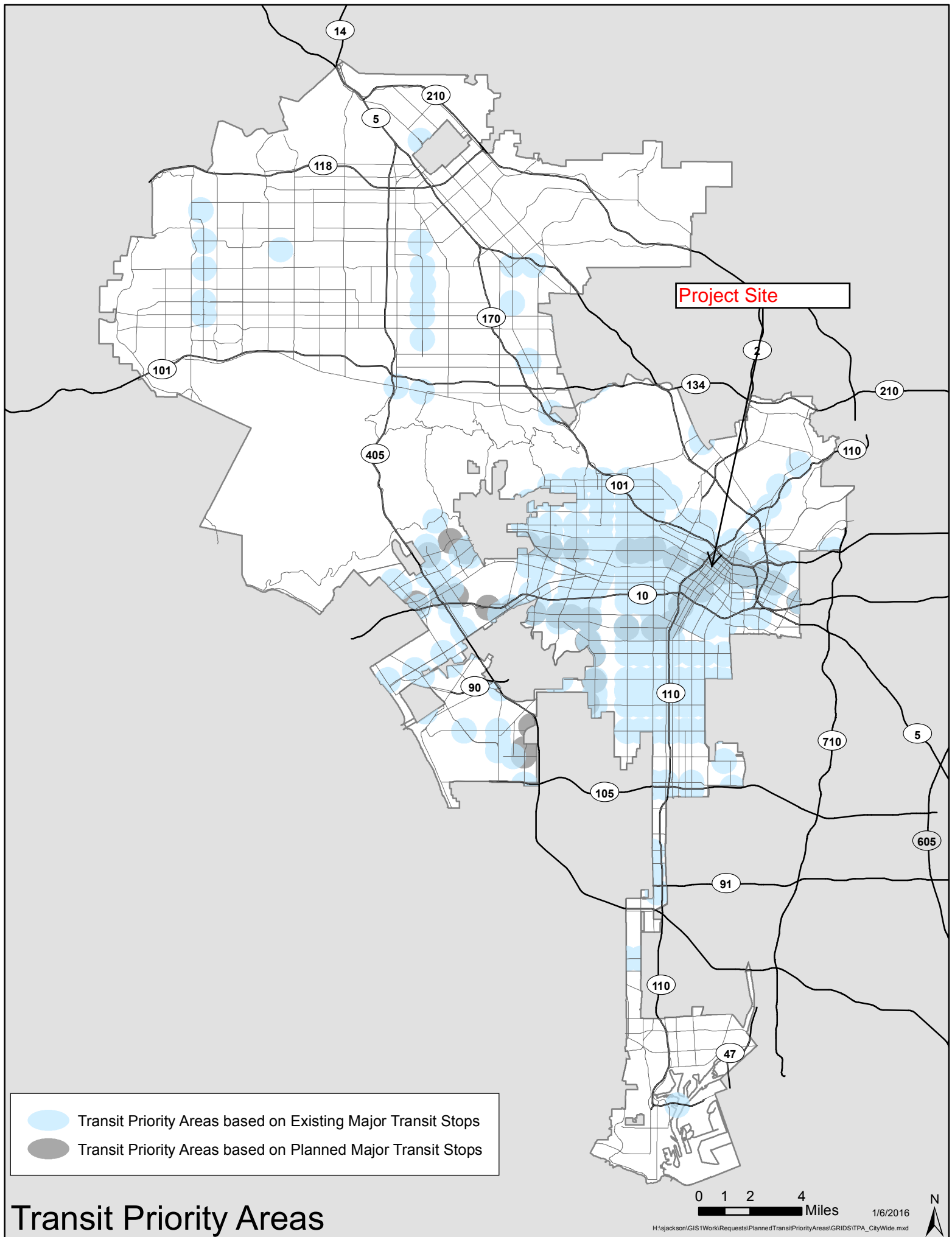
Find attached a citywide map of TPAs in the City of Los Angeles. Department of City Planning (DCP) staff should use this citywide map in determining if a project is clearly within a TPA, and if aesthetics and parking are not to be included in a project's impact evaluation in a negative declaration (ND), mitigated negative declaration (MND) or environmental impact report (EIR) prepared in accordance with CEQA. Eventually, TPAs will be identified in ZIMAS, however this map is to be referenced on an interim basis. Planners should also consult ZIMAS or Navigate LA if it cannot be determined from the map if a project site is within ½ mile of a major transit stop.

A project shall be considered to be within a TPA if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the stop or corridor and if not more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the stop or corridor. Projects intersecting non-overlapping TPA boundaries would also need to demonstrate they are within one-half mile of a major transit stop based on boarding location information. The burden shall be on the project applicant to demonstrate their project is within a TPA for parcels along a TPA boundary.

For further information regarding TPAs or SB 743, contact David Somers at (213) 978-3307

Further reference:

http://opr.ca.gov/s_transitorienteddevelopmentsb743.php



- Transit Priority Areas based on Existing Major Transit Stops
- Transit Priority Areas based on Planned Major Transit Stops

Transit Priority Areas

APPENDIX B

TREE REPORT

TREE REPORT

PREPARED FOR:

MJS Design Group, Inc.
507 30th Street
Newport Beach, CA 92663

PROPERTY:

350 S. Hill Street
Los Angeles, CA 90013

CONTACT:

Douglas Jones, Sr. Project Manager
MJS Design Group, Inc.
507 30th Street
Newport Beach, CA 92663
949-675-9964

January 2, 2015

PREPARED BY:

LISA SMITH
REGISTERED CONSULTING ARBORIST #464
ISA CERTIFIED ARBORIST #WE3782
ISA TREE RISK ASSESSOR QUALIFIED
MEMBER OF AMERICAN SOCIETY OF CONSULTING ARBORISTS
P.O. BOX 49314
LOS ANGELES, CA 90049

TABLE OF CONTENTS

SUMMARY	1
ASSIGNMENT	2
LIMITS OF ASSIGNMENT	2
TREE CHARACTERISTICS AND SITE CONDITIONS	2
SUMMARY OF DATA	3
RECOMMENDATIONS	3
NEW TREE PLANTING	4
ASSUMPTIONS AND LIMITING CONDITIONS	8
APPENDIX A – TREE LOCATION MAP	
APPENDIX B – SUMMARY OF TREES to be REMOVED	
APPENDIX C – PHOTOGRAPHS	

TREE REPORT
338, 342 & 348 S. Hill Street and 309 West 4th Street,
Los Angeles, CA 90013

SUMMARY

This Tree Report was prepared at the request of MJS Design Group, Inc. (Equity is the development company in the process of building the subject high-rise) They are in the process of building a high-rise development at the above locations.

The lots consist of a parking lot, which is currently being used for public parking, and two small commercial premises. The existing commercial premises will be demolished to allow for the construction of the new high-rise development. The combined square footage of all four lots is approximately 32,467 sq. ft., which will be subdivided to allow for the new development to occur. The lots are located in a multi-use area; the lot located at 348 S. Hill Street is adjacent to an area where there are street trees.

Inside the combined properties there are eleven (11) Mexican Fan Palms (*Washingtonia robusta*) and nine (9) London Plane trees (*Platanus × acerifolia*) along with three (3) Indian Laurel Fig trees (*Ficus microcarpa* “*nitida*”). These trees will be removed for proper re-grading and construction throughout the property.

In addition, six (6) London Plane trees (*Platanus × acerifolia*), which are city street trees, and located adjacent to 348 S. Hill Street will be impacted by the construction project. These trees will also be removed.

The owner is preparing to develop this property into a high-rise development where subdivision of the property will occur. The developer will mitigate the removed trees to the satisfaction of the City of Los Angeles, Urban Forestry Division and/or City Planning.

The property is located in the Downtown area of Los Angeles, and is under the jurisdiction of the City of Los Angeles and guided by the Native Tree Protection Ordinance. The City of Los Angeles adopted the Native Tree Protection Ordinance to recognize the aesthetic, environmental, ecological and economic benefits and the historical legacy that trees provide the community. This report was prepared in accordance with the ordinance in relation to native trees.

I have observed the property and can confirm that there are NO trees that fall under the category of protected species within the City of Los Angeles Urban Forestry Native Tree Protection Ordinance.

The primary goal for this report was to evaluate the trees that may be encroached upon by the improvements to this property. In this evaluation we determined there would be significant impact to the trees throughout this property.

Tree Installation Guidelines have also been included to refer to after completion of construction and tree mitigation is taking place.

ASSIGNMENT

The Assignment included a field observation and inventory of the trees located on the property and adjacent streets. The health and vigor of the trees was assessed. Photographs are included in Appendix “A”. Included in this assignment is the preparation of this report, which includes information about the Project Site, Field Observations, Summary of Data and Recommendations.

LIMITS OF ASSIGNMENT

This report is based on our site visit on December 15, 2014. Visual Tree Assessments (VTA) were performed on the trees using ground level visual observations and non-invasive techniques. No climbing of trees was performed. Nor was any formal hazard inspection performed on these trees.

TREE CHARACTERISTICS & PROJECT SITE CONDITIONS

A “Summary of Data” located below, outlines the number of trees and their DBH (Diameter at Breast Height).

There are NO native trees or plants on this property that were observed.

There are a total of eleven (11) Mexican Fan Palms (*Washingtonia robusta*) and nine (9) London Plane trees (*Platanus × acerifolia*) along with three (3) Indian Laurel Fig trees (*Ficus microcarpa* “*nitida*”).

Additionally, there are six (6) London Plane trees (*Platanus × acerifolia*), which are city street trees, and located adjacent to 348 S. Hill Street that will be impacted by this development.

The palm trees range in size from approximately 45 – 50 feet of brown trunk; the London Plane trees range in size from 6” to 9” DBH (Diameter at Breast Height); and the Indian Laurel Fig trees range in size from 14” to 20” DBH (Diameter at Breast Height). All of these trees **within** the properties are growing naturally with limited encouragement.

The six (6) London Plane trees (*Platanus × acerifolia*), which are city street trees, range in size from 4” to 5” DBH (Diameter at Breast Height).

SUMMARY OF DATA

TREE SPECIES	QUANTITY	DBH (INCHES)	COMMENTS
<i>W. robusta</i> (Mexican Fan Palm)	11	45-50' BROWN TRUNK	Remove & Mitigate
<i>Platanus × acerifolia</i> (London Plane)	15	4"-9"	Remove & Mitigate
<i>Ficus microcarpa</i> "nitida" (Indian Laurel Fig)	3	14"-20"	Remove & Mitigate

RECOMMENDATIONS

The existing palms and trees within these properties will be impacted by the re-grading and re-compaction activities during development. These trees will not tolerate the loss of their root system or the lowering of the soil grade around their root ball.

All private property trees: eleven (11) palms, nine (9) London Plane trees (*Platanus × acerifolia*) and three (3) Indian Laurel Fig trees (*Ficus microcarpa* "nitida") should be removed and mitigated to the satisfaction of the City of Los Angeles, Urban Forestry Division and/or City Planning.

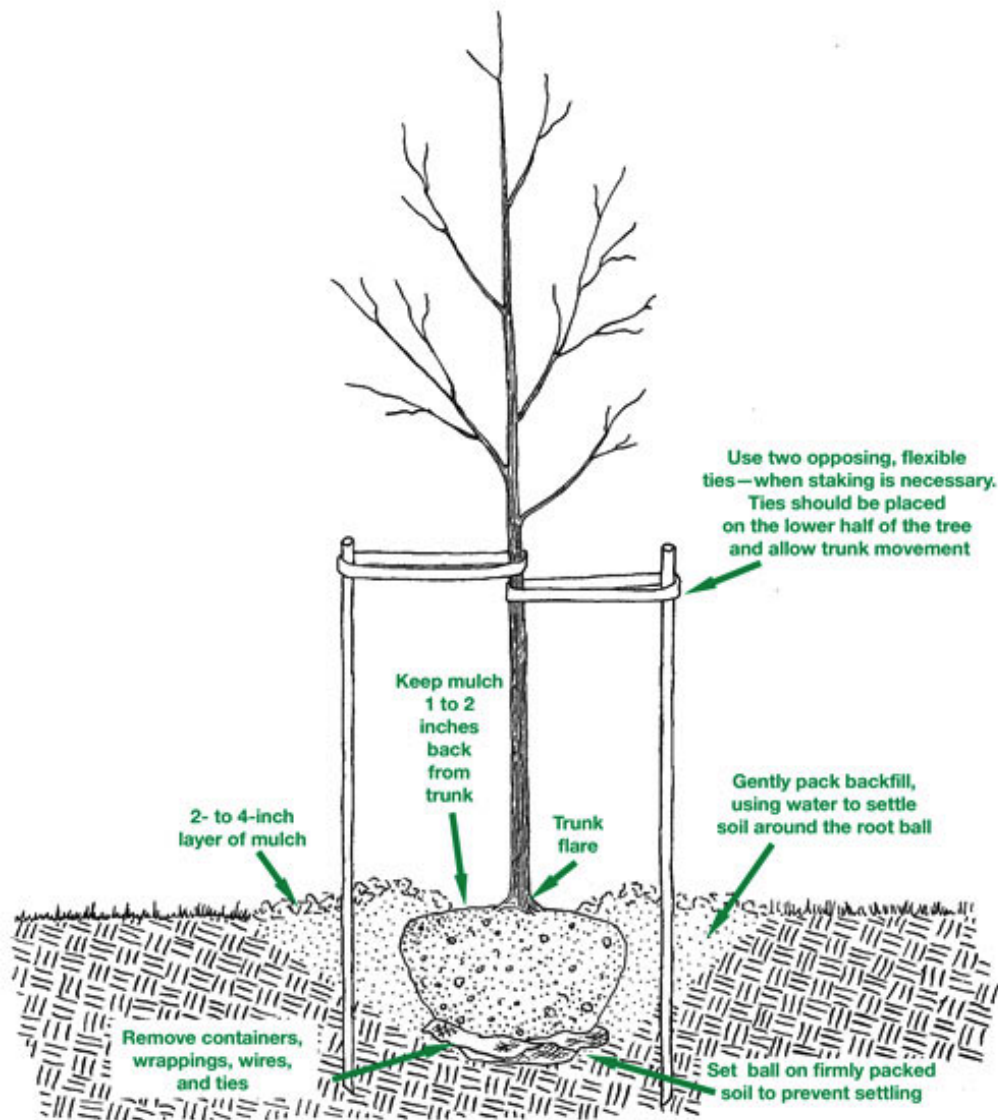
The six (6) London Plane trees (*Platanus × acerifolia*), which are city street trees, will also require removal. These four trees will be mitigated to the satisfaction of the City of Los Angeles, Urban Forestry Division.

NEW TREE PLANTING

The ideal time to plant trees and shrubs is during the dormant season, in the fall after leaf drop or early spring before budbreak. Weather conditions are cool and allow plants to establish roots in the new location before spring rains and summer heat stimulate new top growth. However, trees properly cared for in the nursery or garden center, and given the appropriate care during transport to prevent damage, can be planted throughout the growing season. In tropical and subtropical climates where trees grow year round, any time is a good time to plant a tree, provided that sufficient water is available. In either situation, proper handling during planting is essential to ensure a healthy future for new trees and shrubs. Before you begin planting your tree, be sure you have had all underground utilities located prior to digging.

If the tree you are planting is balled or bare root, it is important to understand that its root system has been reduced by 90 to 95 percent of its original size during transplanting. As a result of the trauma caused by the digging process, trees commonly exhibit what is known as transplant shock. Containerized trees may also experience transplant shock, particularly if they have circling roots that must be cut. Transplant shock is indicated by slow growth and reduced vigor following transplanting. Proper site preparation before and during planting coupled with good follow-up care reduces the amount of time the plant experiences transplant shock and allows the tree to quickly establish in its new location. Carefully follow nine simple steps, and you can significantly reduce the stress placed on the plant at the time of planting.

1. **Dig a shallow, broad planting hole.** Make the hole wide, as much as three times the diameter of the root ball but only as deep as the root ball. It is important to make the hole wide because the roots on the newly establishing tree must push through surrounding soil in order to establish. On most planting sites in new developments, the existing soils have been compacted and are unsuitable for healthy root growth. Breaking up the soil in a large area around the tree provides the newly emerging roots room to expand into loose soil to hasten establishment.



2. **Identify the trunk flare.** The trunk flare is where the roots spread at the base of the tree. This point should be partially visible after the tree has been planted (see diagram). If the trunk flare is not partially visible, you may have to remove some soil from the top of the root ball. Find it so you can determine how deep the hole needs to be for proper planting.
3. **Remove tree container for containerized trees.** Carefully cutting down the sides of the container may make this easier. Inspect the root ball for circling roots and cut or remove them. Expose the trunk flare, if necessary.
4. **Place the tree at the proper height.** Before placing the tree in the hole, check to see that the hole has been dug to the proper depth and no more. The majority of the roots on the newly planted tree will develop in the top 12 inches of soil. If the tree is planted too deeply, new roots will have difficulty developing because of a lack of oxygen. It is better

to plant the tree a little high, 2 to 3 inches above the base of the trunk flare, than to plant it at or below the original growing level. This planting level will allow for some settling (see diagram). To avoid damage when setting the tree in the hole, always lift the tree by the root ball and never by the trunk.

5. **Straighten the tree in the hole.** Before you begin backfilling, have someone view the tree from several directions to confirm that the tree is straight. Once you begin backfilling, it is difficult to reposition the tree.
6. **Fill the hole gently but firmly.** Fill the hole about one-third full and gently but firmly pack the soil around the base of the root ball. Then, if the root ball is wrapped, cut and remove any fabric, plastic, string, and wire from around the trunk and root ball to facilitate growth (see diagram). Be careful not to damage the trunk or roots in the process. Fill the remainder of the hole, taking care to firmly pack soil to eliminate air pockets that may cause roots to dry out. To avoid this problem, add the soil a few inches at a time and settle with water. Continue this process until the hole is filled and the tree is firmly planted. It is not recommended to apply fertilizer at time of planting.
7. **Stake the tree, if necessary.** If the tree is grown properly at the nursery, staking for support will not be necessary in most home landscape situations. Studies have shown that trees establish more quickly and develop stronger trunk and root systems if they are not staked at the time of planting. However, protective staking may be required on sites where lawn mower damage, vandalism, or windy conditions are concerns. If staking is necessary for support, there are three methods to choose among: staking, guying, and ball stabilizing. One of the most common methods is staking. With this method, two stakes used in conjunction with a wide, flexible tie material on the lower half of the tree will hold the tree upright, provide flexibility, and minimize injury to the trunk (see diagram). Remove support staking and ties after the first year of growth.
8. **Mulch the base of the tree.** Mulch is simply organic matter applied to the area at the base of the tree. It acts as a blanket to hold moisture, it moderates soil temperature extremes, and it reduces competition from grass and weeds. Some good choices are leaf litter, pine straw, shredded bark, peat moss, or composted wood chips. A 2- to 4-inch layer is ideal. More than 4 inches may cause a problem with oxygen and moisture levels. When placing mulch, be sure that the actual trunk of the tree is not covered. Doing so may cause decay of the living bark at the base of the tree. A mulch-free area, 1 to 2 inches wide at the base of the tree, is sufficient to avoid moist bark conditions and prevent decay.

9. **Provide follow-up care.** Keep the soil moist but not soaked; overwatering causes leaves to turn yellow or fall off. Water trees at least once a week, barring rain, and more frequently during hot weather. When the soil is dry below the surface of the mulch, it is time to water. Continue until mid-fall, tapering off for lower temperatures that require less-frequent watering. Other follow-up care may include minor pruning of branches damaged during the planting process. Prune sparingly immediately after planting and wait to begin necessary corrective pruning until after a full season of growth in the new location. After you have completed these nine simple steps, further routine care and favorable weather conditions will ensure that your new tree or shrub will grow and thrive. A valuable asset to any landscape, trees provide a long-lasting source of beauty and enjoyment for people of all ages. When questions arise about the care of your tree, be sure to consult your local ISA Certified Arborist or garden center professional for assistance.

ASSUMPTIONS AND LIMITING CONDITIONS

The trees identified in this report were reviewed for general health and vigor and reflect the condition of the trees on the date reviewed. The field inspection was a visual, grade level tree assessment. No lab testing of the soil, rootzone, leaf tissue or upper canopy examination was performed.

No warranty is made, expressed or implied, that problems or deficiencies of the trees or the property will not occur in the future, from any cause. The Consultant shall not be responsible for damages or injuries caused by any tree defects, and assumes no responsibility for the correction of defects or tree related problems. As the trees continue to grow and mature, some defects may become more pronounced and externally visible.

The owner may choose to accept or disregard the recommendations of the Consultant, or seek additional advice to determine if a tree meets the owner's risk abatement standards.

The Consulting Arborist has no past, present or future interest in the removal or retaining of any tree. Opinions contained herein are the independent and objective judgments of the consultant relating to circumstances and observations made on the subject site.

The recommendations contained in this report are the opinions of the Consulting Arborist at the time of inspection. These opinions are based on the knowledge, experience, and education of the Arborist. The field inspection was a visual, grade-level tree assessment.

The Consulting Arborist shall not be required to give testimony, perform site monitoring, provide further documentation, be deposed, or to attend any meeting without subsequent contractual arrangements for this additional employment, including payment of additional fees for such services as described by the Consultant.

The Consultant assumes no responsibility for verification of ownership or locations of property lines, or for results of any actions based on inaccurate information.

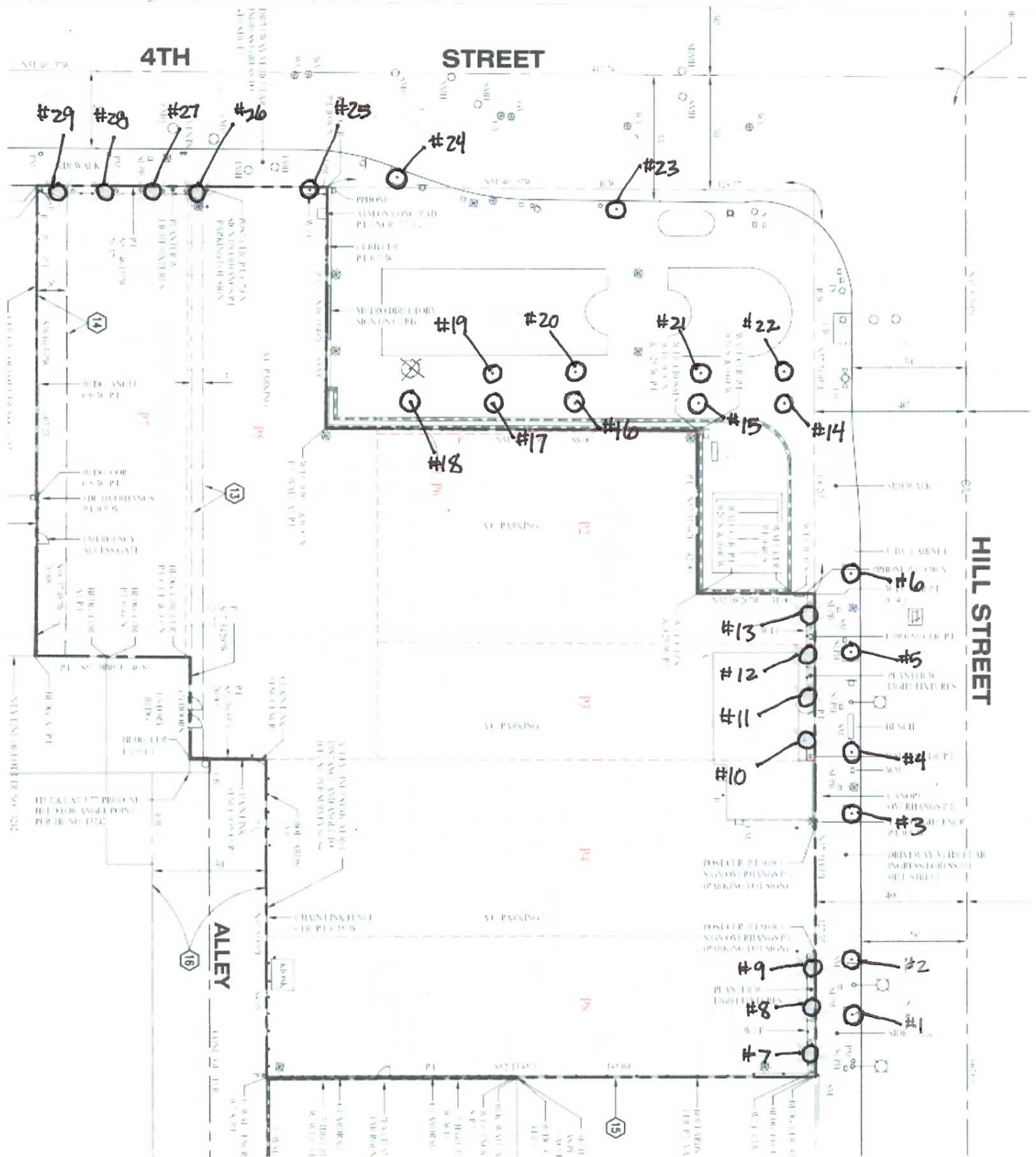
This Arborist report may not be reproduced without the express permission of the Consulting Arborist and the client to whom the report was issued. Any change or alteration to this report invalidates the entire report.

Should you have further questions regarding any information contained in this report, please contact me at (310) 663-2290.

Respectfully submitted,

Lisa Smith, Registered Consulting Arborist #464
ISA Certified Arborist #WE3782
ISA Tree Risk Assessor Qualified
Member of American Society of Consulting Arborists

TREE LOCATION MAP - 4th and Hill Street
338, 342 & 348 S. Hill Street
309 W. 4th Street
Los Angeles, CA 90013



Summary of Trees to be Removed

Tree	Common Name	DBH	Height	Spread	Condition
1	London Plane	4"	20'	10'	Fair/Poor
2	London Plane	4"	20'	10'	Fair/Poor
3	London Plane	5"	20'	10'	Fair/Poor
4	London Plane	5"	20'	10'	Fair/Poor
5	London Plane	5"	20'	10'	Fair/Poor
6	London Plane	5"	20'	10'	Fair/Poor
7	Mexican Fan Palm		45'		Fair
8	Mexican Fan Palm		45'		Fair
9	Mexican Fan Palm		45'		Fair
10	Mexican Fan Palm		45'		Fair
11	Mexican Fan Palm		45'		Fair
12	Mexican Fan Palm		45'		Fair
13	Mexican Fan Palm		45'		Fair
14	London Plane	7.5"	25'	10'	Fair/Poor
15	London Plane	9"	20'	10'	Fair/Poor
16	London Plane	7"	20'	10'	Fair/Poor
17	London Plane	8"	20'	10'	Fair/Poor
18	London Plane	7.5"	20'	10'	Fair/Poor
19	London Plane	7"	20'	10'	Fair/Poor
20	London Plane	7"	20'	10'	Fair/Poor
21	London Plane	8.5":	20'	10'	Fair/Poor
22	London Plane	6"	20'	10'	Fair/Poor
23	Ficus nitida	20"	45'	45'	Fair
24	Ficus nitida	15"	45'	45'	Fair
25	Ficus nitida	14"	40'	35'	Fair
26	Mexican Fan Palm		50'		Fair
27	Mexican Fan Palm		50'		Fair
28	Mexican Fan Palm		50'		Fair
29	Mexican Fan Palm		50'		Fair

APPENDIX C – PHOTOGRAPHS



PHOTO #1:

This is a photo showing one of the three private property Ficus trees.

This tree will be removed for proper re-grading and construction throughout the property. This tree will be mitigated to the satisfaction of the City Planning at a 1:1 ratio.



PHOTO #2:

This photo shows the second of the private property Ficus trees.

This tree will be removed for proper re-grading and construction throughout the property. This tree will be mitigated to the satisfaction of the City Planning at a 1:1 ratio.



PHOTO #3:

This is a close up photo of the third private property Ficus trees.

This tree will be removed for proper re-grading and construction throughout the property. This tree will be mitigated the to the satisfaction of the City Planning at a 1:1 ratio.



PHOTO #4:

This is a photo showing several of the private property London Plane trees.

These trees will be removed for proper re-grading and construction throughout the property. This tree will be mitigated the to the satisfaction of the City Planning at a 1:1 ratio.



PHOTO #5:

This photo shows four of the Mexican Fan Palm trees interspersed with juvenile Ficus trees (with DBH's less than 8"). All of these trees are located on the (private) property.

These trees will be removed for proper re-grading and construction throughout the property. The palm trees will be mitigated to the satisfaction of the City Planning at a 1:1 ratio.



PHOTO #6:

This photo also shows the four Mexican Fan Palm trees interspersed with juvenile Ficus trees (with DBH's less than 8"). All of these trees are located on the (private) property.

These trees will be removed for proper re-grading and construction throughout the property. The palm trees will be mitigated to the satisfaction of the City Planning at a 1:1 ratio.



PHOTO #7:

This photo shows the base of one of the city street trees, which is a London Plane tree.

This tree grate has never been modified to accommodate the expanding trunk of the tree.

This tree will be removed for proper re-grading and construction throughout the property. This tree will be mitigated to the satisfaction of the City of Los Angeles, Urban Forestry Division at a 2:1 ratio.



PHOTO #8:

This photo shows the row of city street trees, which are London Plane trees, and a row of private property Mexican Fan Palms.

These trees will be removed for proper re-grading and construction throughout the property. These trees will be mitigated to the satisfaction of the City of Los Angeles, Urban Forestry Division and/or City Planning.



PHOTO #9:

This is a close up of the same photo row of city street trees, which are London Plane trees, and a row of private property Mexican Fan Palms.

These trees will be removed for proper re-grading and construction throughout the property. These trees will be mitigated the to the satisfaction of the City of Los Angeles, Urban Forestry Division and/or City Planning.



PHOTO #10:

This photo shows a further two Mexican Fan Palm trees interspersed with juvenile Ficus trees (with DBH's less than 8"). All of these trees are located on the (private) property.

These trees will be removed for proper re-grading and construction throughout the property. The palm trees will be mitigated to the satisfaction of the City Planning at a 1:1 ratio.



PHOTO #11:

This photo shows the base of one of the city street trees, which is a London Plane tree.

This tree grate has never been modified to accommodate the expanding trunk of the tree.

This tree will be removed for proper re-grading and construction throughout the property. This tree will be mitigated to the satisfaction of the City of Los Angeles, Urban Forestry Division at a 2:1 ratio.



PHOTO #12:

This photo shows the base of one of the city street trees, which is a London Plane tree.

This tree grate has never been modified to accommodate the expanding trunk of the tree.

This tree will be removed for proper re-grading and construction throughout the property. This tree will be mitigated to the satisfaction of the City of Los Angeles, Urban Forestry Division at a 2:1 ratio.

APPENDIX C

CULTURAL RESOURCES DOCUMENTATION

South Central Coastal Information Center

California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542

sccic@fullerton.edu

California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

10/29/2014

SCCIC File #: 14493.660

Kerri Nicholson
CAJA Environmental
11990 West San Vicente Blvd, Ste.250
Los Angeles CA 90049

Re: Equity Residential Mixed-Use Project – Request for Historical and Archaeological Information

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Hollywood, CA and Los Angeles, CA USGS 7.5' quadrangle. The following summary reflects the results of the records search for the project area and a ½-mile radius. The search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), the California State Historic Properties Directory (HPD), and the City of Los Angeles Historic-Cultural Monuments (LAHCM) listings were reviewed for the above referenced project site. Due to the sensitive nature of cultural resources, archaeological site locations are not released.

RECORDS SEARCH RESULTS SUMMARY

Archaeological Resources	Within project area: 0 Within project radius: 11
Built-Environment Resources	Within project area: 6 Within project radius: 169
Reports and Studies	Within project area: 3 Within project radius: 84
OHP Historic Properties Directory (HPD)	Within project area: 1 Within project radius: 172
California Points of Historical Interest (SPHI)	Within project area: 0 Within project radius: 0
California Historical Landmarks (SHL)	Within project area: 0 Within project radius: 0
California Register of Historical Resources (CAL REG)	Within project area: 1 Within project radius: 80
National Register of Historic Places	Within project area: 1

(NRHP)	Within project radius: 52
City of Los Angeles Historic-Cultural Monuments (LAHCM)	Within project area: 1

HISTORIC MAP REVIEW –Pasadena, CA (1896, 1900) and Santa Monica, CA (1902, 1921): indicated that on the Pasadena, CA map of 1896, there appeared to be several buildings within the project site. The project site was located within a dense urban environment with numerous buildings and roads present within the vicinity of the project area. The project site was located within the historic place name of Los Angeles. In 1900, all previously mentioned features remained. On the Santa Monica, CA map of 1902, there were numerous buildings and roads present within the vicinity of the project area. There appeared to be a park located to the southwest of the project site. In 1921, there appeared to be an increase in buildings and roads within the vicinity of the project area. The park is no longer visibly labeled and all other previously mentioned features remained.

RECOMMENDATIONS

The project site is located in an area with over 100 years of urban development. The project site is also adjacent to numerous built-environment resources that are on or eligible for the National Register or California Register. It is therefore recommended that a qualified architectural historian be retained to evaluate the effects of this project on the recorded resources in the surrounding area prior to the approval of project plans. It is also recommended that any historic properties (45 years and older and in the area of potential effect) be identified, recorded, and evaluated for local, state, or national significance prior to the approval of project plans. As buried or surface archaeological resources may also be present, it is also recommended that a qualified archaeologist be retained to survey and monitor the area prior to and throughout the ground-disturbing activities. Finally, the Native American Heritage Commission should be consulted to identify if any additional traditional cultural properties or other sacred sites are known to be in the area.

For your convenience, you may find a professional consultant* at www.chrisinfo.org. Any resulting reports by the qualified consultant should be submitted to the South Central Coastal Information Center as soon as possible.

*The SCCIC does not endorse any particular consultant and makes no claims about the qualifications of any person listed. Each consultant on this list self-reports that they meet current professional standards.

If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm. Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the [California Historical Resources Information System](#),

Lindsey Noyes
Lead Staff Researcher

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007
tel 213.763.DINO
www.nhm.org

Vertebrate Paleontology Section
Telephone: (213) 763-3325
FAX: (213) 746-7431
e-mail: smcleod@nhm.org



21 November 2014

CAJA Environmental Services, LLC
11990 West San Vicente Boulevard, Suite 200
Los Angeles, CA 90049

Attn: Kerrie Nicholson, Senior Project Manager

re: Paleontological resources for the proposed Equity Residential Mixed-Use Project, in the City
of Los Angeles, Los Angeles County, project area

Dear Kerrie:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Equity Residential Mixed-Use Project, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Los Angeles USGS topographic quadrangle map that you sent to me via e-mail on 28 October 2014. We do not have any vertebrate fossil localities that lie within the project boundaries, but we do have localities nearby from the same sedimentary deposits that occur in the proposed project area.

Surface deposits throughout the entire proposed project area consist of younger Quaternary Alluvium, derived as fluvial overbank deposits from the Los Angeles River that flows just to the east. Although these deposits typically do not produce significant vertebrate fossils, at least in the uppermost layers, our closest vertebrate fossil localities from the same deposits near the Los Angeles River are LACM 7701-7702, east-southeast of the proposed project area in the City of Commerce near the intersection of Atlantic Avenue and the Long Beach Freeway (I-710) that produced fossil specimens of threespine stickleback, *Gasterosteus aculeatus*, salamander, *Batrachoseps*, lizard, Lacertilia, snake, Colubridae, rabbit, *Sylvilagus*, pocket mouse, *Microtus*, harvest mouse, *Reithrodontomys*, and pocket gopher, *Thomomys*, at depths of 11 to 34 feet below grade. Our closest vertebrate fossil locality from older Quaternary deposits that probably occur at relatively shallow depth in the proposed project area is LACM 1755, southwest of the proposed project area near the

intersection of 12th and Hill Streets, that produced a specimen of fossil horse, *Equus*, at unknown depth.

Immediately to the northwest of the proposed project area, across Hill Street, there are exposures of the marine Pliocene Fernando Formation. We have one vertebrate fossil locality from the Fernando Formation, LACM 4726, that occurs adjacent to the proposed project area at the corner of 4th and Hill Streets and produced a fossil specimen of undetermined bony fish, Osteichthyes. Our next closest Fernando Formation localities are LACM 7730, east-northeast of the proposed project area near the intersection of Main Street and 2nd Street; LACM 6971, due west of the proposed project area west of Pershing Square near the corner of 6th and Flower Streets; and LACM 3868, further north of west of the proposed project area across the Harbor Freeway (I-110) near the corner of Wilshire Boulevard and Lucas Avenue. These nearby Fernando Formation localities have produced a composite fauna including fossil specimens of stingray, *Dasyatis*, eagle ray, *Myliobatis*, skate, *Raja*, chimaerid, Chimaeriformes, bull shark, *Carcharhinus leucas*, dusky shark, *Carcharhinus obscurus*, hammerhead shark, *Sphyrna*, sixgill shark, Hexanchiformes, bonito shark, *Isurus oxyrinchus*, salmon shark, *Lamna ditropis*, white sharks, *Carcharodon sulcidens* and *Carcharodon carcharias*, herring, Clupeidae, hake, *Merluccius*, sheepshead, *Semicossyphus*, mackerel, *Scomber*, bird, Aves, orqual baleen whale, Balanopteridae, and toothed whale, Odontoceti.

Shallow excavations in the younger Quaternary Alluvium deposits covering the entire proposed project area probably will not encounter significant fossil vertebrate remains. Deeper excavations in those areas that extend down into older deposits, however, may well encounter significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Additionally, many specimens in these rock units are small and may not be detected in normal excavation monitoring activities. We recommend that samples from these rock units be collected and analyzed for their paleontological potential. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,



Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

APPENDIX D

GEOTECHNICAL REPORT

GEOTECHNICAL FEASIBILITY REPORT, PROPOSED
RESIDENTIAL DEVELOPMENT, 348 SOUTH HILL STREET,
CITY OF LOS ANGELES, CALIFORNIA

Prepared for:

EQUITY RESIDENTIAL

26880 Aliso Viejo Parkway, Suite 200
Aliso Viejo, California 92656

Project No. 10705.001

June 12, 2014



Leighton and Associates, Inc.

A LEIGHTON GROUP COMPANY



Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

June 12, 2014

Project No. 10705.001

To: Equity Residential
26880 Aliso Viejo Parkway, Suite 200
Aliso Viejo, California 92656

Attention: Mr. Dustin Smith

Subject: Geotechnical Feasibility Report, Proposed Residential Development, 348
South Hill Street, City of Los Angeles, California

In response to your request and authorization, Leighton and Associates, Inc. (Leighton) has prepared this geotechnical feasibility report for the proposed residential development to be located at northeast corner of 4th Street and Hill Street in the city of Los Angeles, California. This report is issued as draft and may be revised accordingly based on the results of the ongoing laboratory testing.

The site is an approximately 0.7-acre parcel that will be developed for a 28-story building over a 3-level subterranean parking structure.

Artificial fill consisting predominantly of clayey sand and sandy clay with brick debris was encountered to depths of 5 to 10 feet below the existing grade. The fill is underlain by alluvium consisting mainly of very dense sand with gravel. Bedrock of the San Fernando Formation was encountered below the alluvium at depths of 15 to 20 feet. Groundwater was encountered at depths of 16 to 26 feet below existing grade in Borings LB-1 through LB-3. However, groundwater was not encountered in boring LB-4.

The subterranean levels of the proposed 28-story structure will be approximately 30 feet below existing grade. Based on the planned depth of subterranean levels, geotechnical aspects of the site that should be considered in planning and design include the presence of bedrock and groundwater, the need for relatively high permanent shoring systems, and the interactions of the proposed subterranean levels with the existing underground improvements associated with the adjacent Pershing Square Metro Station.

No known active or potentially active faults are mapped to cross the site, and the site is not located within an Alquist-Priolo Special Studies Zones. However, significant ground shaking should be anticipated at the site during the expected life of the proposed structure.

The proposed project is deemed feasible from a geotechnical standpoint. Conventional mat foundation established on undisturbed native soils or on engineered fill may be used to support the proposed structure.

Presented in this report are our findings and preliminary recommendations for the proposed project based on the reviewed geotechnical aspects of the site and the anticipated behavior of the soils during and after construction.

We appreciate the opportunity to be of service to you on this project. If you have any questions or if we can be of further service, please contact us at your convenience.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Djan Chandra, PE, GE 2376
Senior Principal Engineer

SP/DJC/gv

Distribution: (1) Addressee

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION.....	1
1.1 Site Description and Proposed Development.....	1
1.2 Proposed Development.....	1
1.3 Purpose and Scope	1
2.0 GEOTECHNICAL FINDINGS	4
2.1 Geologic Setting	4
2.2 Subsurface Soil Conditions	4
2.3 Expansive Soil Characteristics	5
2.4 Soil Corrosivity	5
2.5 Groundwater Conditions	5
2.6 Fault Rupture	6
2.7 Seismicity and Ground Shaking	6
2.8 Secondary Seismic Hazards	6
3.0 PRELIMINARY DESIGN RECOMMENDATIONS.....	8
3.1 Site Grading.....	8
3.2 Foundations.....	9
3.3 Seismic Design Parameters.....	10
3.4 Lateral Earth Pressures	11
3.5 Cement Type and Corrosion Protection	12
3.6 Trench Backfill	12
3.7 Future Geotechnical Evaluation	13
4.0 CONSTRUCTION CONSIDERATIONS.....	14
4.1 Temporary Excavation	14
4.2 Temporary Shoring	14
4.3 Temporary Dewatering.....	15
5.0 LIMITATIONS.....	16
6.0 REFERENCES.....	17

Figure 1 – Site Plan

Rear of Text

Figure 2 – Boring Location Map

Rear of Text

Appendix A – Geotechnical Boring Logs

Appendix B – Laboratory Test Results (In Progress)

Appendix C – Geophysical Testing (In Progress)

1.0 INTRODUCTION

1.1 Site Description and Proposed Development

The site is an approximately 0.7-acre parcel, bordered by Hill Street to the west, 4th Street to the south, and existing buildings to the north and east (See Figure 1, Site Location Map). The site is relatively flat and currently used as a paved parking lot.

1.2 Proposed Development

Based on the information provided to us, we understand that the proposed development consists of a 28-story building with roof-top amenities and helipad over a 3-level subterranean parking structure. Level 1 will be developed for leasing office, lobby and retails, Level 2 through 6 will be used for residential parking garage, and Levels 7 through 28 will be occupied by approximately 367 units of studio, one-bedroom, and two-bedroom units. A portion of Level 3 through 6 along 4th Street will cantilever over Pershing Square Metro Station entrance.

1.3 Purpose and Scope

The purpose of our work was to evaluate the general geotechnical conditions of the site relative to the proposed development and provide preliminary geotechnical recommendations to aid in the project planning. The scope of this geotechnical evaluation included the following tasks:

- Background Review – In preparation of this report, we performed a background review of readily available, relevant, geotechnical and geological literature pertinent to the site. References used in preparation of this report are listed in Section 6.0.
- Field Exploration – Prior to performing subsurface exploration, a reconnaissance of the site was carried out by Leighton (Leighton) personnel. The locations of proposed explorations were marked on the ground surface and Underground Service Alert (USA) was notified to provide clearance for any underground utility lines.

Our field exploration was performed between May 21 and May 23, 2013, and consisted of four hollow-stem auger borings (LB-1 through LB-4) drilled to a

maximum depth of 81½ feet below existing grade. The approximate locations of the explorations are shown on Figure 2, *Geotechnical Exploration Map*. Soils encountered in the borings were continuously logged in the field by a Leighton representative and described in accordance with the Unified Soil Classification System (ASTM D 2488). During drilling, bulk and relatively undisturbed drive samples were obtained from the borings for geotechnical laboratory testing and evaluation. The relatively undisturbed samples were obtained utilizing a modified California drive sampler with 2³/₈-inch I.D. (inside diameter) and 3-inch O.D. (outside diameter), driven 18 inches with a 140 pound automatic hammer dropping 30 inches in general accordance with ASTM Test Method D3550. Standard Penetration Tests (SPTs) were performed using a 24-inch-long, 1³/₈-inch I.D. and 2-inch O.D. split spoon sampler driven 18 inches with a 140-pound hammer dropping 30 inches in general accordance with ASTM Test Method D1586. The number of blow counts per 6 inches of penetration was recorded on the boring logs. Logs of the boring are presented in Appendix A.

- Laboratory Testing – Geotechnical laboratory tests were conducted on selected relatively undisturbed and bulk soil samples obtained during our field exploration. The laboratory testing program was designed to evaluate the engineering characteristics of the onsite soil and included in situ moisture content and dry density, percent passing No. 200 sieve, Atterberg Limits, direct shear, consolidation, R-value, and Corrosivity (sulfate and chloride content, minimum resistivity, and pH). The laboratory tests are in progress and the results will be presented in Appendix B.
- Geophysical Testing – Geophysical surveys were performed using Electromagnetic (EM) and magnetic surveys to assess the presence of subsurface features, including utilities. The EM survey was conducted with a Geonics EM61 MK2 time domain instrument and the magnetic survey was performed with a Geometrics cesium vapor magnetometer. The EM61 can typically detect metal objects to depths of 11 feet depending on their size, and the magnetometer can detect ferromagnetic objects to greater depths, again depending on their size. Ground penetrating radar (GPR) and line tracers were also used to detect underground utilities. Results of the geophysical testing will be presented in Appendix C.
- Engineering Analysis – The data obtained from our background review and field exploration were evaluated and analyzed to develop the preliminary

geotechnical parameters and recommendations for the proposed development.

- Report Preparation – This report presents our findings, conclusions and preliminary recommendations for the proposed development. The recommendations should be reviewed and revised, if necessary, based on final development plans and additional geotechnical analyses during the design development phase.

DRAFT

2.0 GEOTECHNICAL FINDINGS

2.1 Geologic Setting

The project site is situated within the Los Angeles basin, a deep structural sediment-filled trough located at the northern end of the Peninsular Ranges geomorphic province of southern California. The Peninsular Ranges extend approximately 900 miles southward from the Santa Monica Mountains to the tip of Baja California (Yerkes, et al., 1965). The province is characterized by elongated northwest-trending mountain ridges and sediment-floored valleys. The province includes numerous northwest trending fault zones, most of which either die out, merge with, or are terminated by faults that form the southern margin of the frontal mountain thrust faults, which mark the southern boundary of the east-west trending Transverse Ranges province. These northwest trending, seismically active fault zones include the San Jacinto, Whittier-Elsinore, Palos Verdes, and Newport-Inglewood faults.

The subject site is located west of the channelized Los Angeles River. For the past 15,000 years the Los Angeles River has been intermittently transporting material eroded from the upland areas to San Pedro Bay. The site is underlain by Quaternary-aged alluvium (Dibblee, 1991) generally consisting of interbedded sand, silt, and clay with varying amounts of gravel deposited as the ancestral Los Angeles River meandered across the floodplain of the Los Angeles basin. These deposits are underlain by a thick (several thousands of feet) sequence of Tertiary age, sedimentary rock formations locally intruded by igneous rocks of middle Miocene age overlying Cretaceous age basement rocks belonging to the Catalina Schist.

2.2 Subsurface Soil Conditions

The site is underlain by artificial fill (Af), Quaternary-aged alluvium (Qa), and bedrock. The artificial fill encountered in our borings generally ranges from 5 to 10 feet in thickness and consisted primarily of clayey sand and sandy clay with brick debris.

Below the artificial fill, Quaternary-aged alluvium was encountered in all of the borings to a depth of 15 to 20 feet below existing grade. The alluvium generally consisted of moist to very moist, dense to very dense sand with gravel and cobbles.

Below the Quaternary-aged alluvium, bedrock of San Fernando Formation was encountered in all of the borings, drilled to a maximum depth of 81½ feet. The bedrock generally consists of hard claystone and siltstone.

A detailed description of the subsurface soils encountered in the borings is presented in the boring logs (Appendix A). Some of the engineering properties of these soils are described in the following sections.

2.3 Expansive Soil Characteristics

Representative sample of the near surface soil was subjected to Expansion Index testing to evaluate the expansive potential. The results of the testing indicate the soils generally exhibit “low” expansion potential ($EI < 50$).

2.4 Soil Corrosivity

In general, soil environments that are detrimental to concrete have high concentrations of soluble sulfates and/or pH values of less than 5.5. Soils with chloride content greater than 500 ppm per California Test 532 are considered corrosive to steel, either in the form of reinforcement protected by concrete cover or plain steel substructures, such as steel pipes. Additionally, soils with a minimum resistivity of less than 1,000 Ohm-cm are considered corrosive to ferrous metal.

Based on the laboratory test results, the subsurface soils have low soluble sulfate contents. Therefore, the potential for sulfate attack on concrete is considered low. However, the tested soils are considered to have severe corrosion potential to buried ferrous metal in direct contact with the soils.

2.5 Groundwater Conditions

Groundwater was encountered at depths of 16 to 26 feet below existing grade in Borings LB-1 through LB-3. However, groundwater was not encountered in Boring LB-4. Two 2-inch diameter, slotted PVC standpipe monitoring wells were installed at Boring LB-2 to monitor the groundwater level. One monitoring well was slotted at 10 to 20 feet deep and the other at 25 to 35 feet deep. To provide a preliminary assessment of the amount of groundwater, a portable pump was used to lower the water in the wells and the recharge rate was measured. In the first monitoring well where the slotted section is between 10 and 20 feet, the groundwater recharge rate was measured to be roughly one gallon per minute.

In the second monitoring well where the slotted section is between 25 and 35 feet, the water was lowered to 32 feet and no recharge was observed within the test period of two hours. The groundwater appears to be perched in the alluvium above the bedrock between approximately 15 to 20 feet.

The historically high groundwater level for this area, according to the California Geologic Survey (2001), is on the order of 20 to 40 feet below the ground surface.

2.6 Fault Rupture

No active faults are mapped or known to cross the site, and the site is not located within an Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007).

2.7 Seismicity and Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California. Known regional active faults that could produce significant ground shaking at the site include the Elysian Park, Puente Hills Blind Thrust, Santa Monica, Hollywood, Raymond, and Newport-Inglewood faults. These faults are located approximately 1.4, 3.8, 4.5, 4.6, 5.1, and 7.3 miles, respectively, from the site.

The intensity of ground shaking at a given location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics. Peak Horizontal Ground Accelerations (PHGA) is generally used to evaluate the intensity of ground motion.

Using the United States Geological Survey (USGS) Seismic Design Maps (USGS, 2013), the peak ground acceleration for the Maximum Considered Earthquake (MCE_G) adjusted for the Site Class effects (PGA_M) is 0.91g. Based on the USGS online interactive deaggregation program (USGS, 2008), the modal seismic event is Moment Magnitude (M_W) 6.6 at a distance of 2.6 miles.

2.8 Secondary Seismic Hazards

Secondary seismic hazards in the region could include soil liquefaction and associated surface manifestation, earthquake-induced landsliding and flooding,

seiches, and tsunamis. The potential for seismic hazards at the site is discussed below.

Liquefaction Potential – Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine-to-medium grained, cohesionless soils. As the shaking action of an earthquake progresses, the soil grains are rearranged and the soil densifies within a short period of time. Rapid densification of the soil results in a buildup of pore-water pressure. When the pore-water pressure approaches the overburden pressure, the soil reduces greatly in strength and temporarily behaves similarly to a fluid. Effects of liquefaction can include sand boils, settlement, and bearing capacity failures below structural foundations.

Review of the *Seismic Hazard Zone Report for the Los Angeles Quadrangle* (CGS, 1998, revised 2006) indicates the northern half of the subject site is located within an area that has been identified by the State of California as being potentially susceptible to the occurrence of liquefaction. However, our borings encountered bedrock consisting of claystone/siltstone at depths of 15 to 20 feet below existing grade (below the historically high groundwater table of 20 to 40 feet). The bedrock is hard and not considered susceptible to liquefaction. As such, liquefaction potential for the subject site is considered low.

Seismically-Induced Landslides – The site is relatively flat. Proposed slopes, if any, should be engineered and constructed at a gradient of 2:1 (horizontal:vertical) or flatter. The potential for seismically-induced landsliding is considered low.

Earthquake-Induced Flooding – Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. Due to the absence of these structures near the site, we consider the potential for earthquake-induced flooding of the site in the near future to be low.

Seiches and Tsunamis – Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

3.0 PRELIMINARY DESIGN RECOMMENDATIONS

Presented below are the preliminary geotechnical recommendations for planning purposes. A geotechnical investigation that includes additional subsurface exploration may be required once the final design and project plan become available. Design of the project in accordance with standard engineering practice, including requirements of the CBC, and the recommendations of the project civil and structural engineers, geotechnical consultant and others will reduce the potential for adverse geotechnical conditions impacting the proposed improvements.

Existing improvements that may be affected by the proposed project, including Pershing Square Metro Station and the associated improvements, should be identified and provided to Leighton for evaluation. As the project proceeds, the results of this and future geotechnical studies should be incorporated in the design and construction of the development.

3.1 Site Grading

All site grading should be performed in accordance with the applicable local codes and in accordance with the project specifications that are prepared by the appropriate design professional.

Site Preparation – Prior to construction, the site should be cleared of any vegetation, trash and/or debris within the area of proposed grading. These materials should be removed from the site. Any underground obstructions onsite should be removed. Efforts should be made to locate any existing utility lines to be removed or rerouted where interfering with the proposed construction. Any resulting cavities should be properly backfilled and compacted. After the site is cleared, the soils should be carefully observed for the removal of all unsuitable deposits. All unsuitable deposits and undocumented fill should be excavated and removed from proposed building/structure footprint prior to fill placement.

Excavation – The planned excavation is anticipated to extend about 30 feet below existing grade. Accordingly, artificial fill encountered to a maximum depth of 10 feet and alluvium overlying the onsite bedrock will be removed by the excavation. The alluvial soils and bedrock can be excavated with conventional heavy construction equipment in good working condition. Oversize materials, such as gravel and cobbles, may be present within the alluvium that may require

special handling during excavation and export operations. The contractor should review our boring logs and select the proper equipment for the site grading.

Building Pad – At approximately 30 feet below existing grade, the proposed subterranean parking structure is expected to be supported on bedrock. After completion of the excavation, the exposed surface should be observed by Leighton. We recommend that a working surface be established at least 6 inches above the design basement subgrade to accommodate removal of disturbed materials prior to pouring concrete directly over the subgrade. Bedrock disturbed during excavation should be removed and recompact to 95 percent relative compacted or replaced with 2-sack sand/cement slurry.

Fill Placement and Compaction – The onsite soils, to be used as compacted structural fill, should be free of organic material or construction debris. The soils may require air drying or mixing with drier materials prior to placement as compacted fill. Any imported fill soil should be approved by the geotechnical engineer prior to placement as fill. Fill soils should be placed in loose lifts not exceeding 8 inches, moisture-conditioned to at least 2 to 4 percent above optimum moisture content, and compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM Test Method D 1557, except where noted above for building pad.

3.2 Foundations

Mat Foundation – Following the site grading mentioned above, the proposed structure may be supported on a mat foundation system. The mat foundation may be designed using an allowable bearing capacity of 5,000 psf and a coefficient of vertical subgrade reaction of 150 pounds per cubic inch (pci). The recommended bearing value is a net value. The weight of concrete in the foundation can be taken as 150 pounds per cubic foot (pcf) and the weight of soil backfill can be neglected when determining the downward loads. The bearing capacity may be increased by one-third for wind or seismic loading. Total settlement of the mat foundation as recommended above is estimated to be less than one inch. Differential settlement of the mat foundation is expected to be on the order of ½ inch over a distance of 30 feet.

Ancillary Structures – Footings for ancillary structures established on engineered fill or undisturbed natural soils may be designed for an allowable bearing pressure of 3,000 pounds per square foot (psf). The footings should have a

minimum width of 12 inches and a minimum embedment of 18 inches. A one third increase in the bearing value for short duration loading, such as wind or seismic forces may be used.

Lateral Load Resistance – Lateral loads can be resisted by soil friction and by the passive resistance of the soils. A coefficient of friction of 0.30 can be used between the footings and the floor slab and the supporting soils. The passive pressure of undisturbed natural soils or engineered fill can be assumed as 350 psf per foot of depth to a maximum of 4,000 psf. These friction and passive pressure values may be used in combination without reduction. The above values do not contain an appreciable factor of safety, so the structural engineer should apply the applicable factors of safety and/or load factors during design.

Pile Foundation for Cantilevered Floors – A portion of Levels 3 through 6 along 4th Street will cantilever over Pershing Square Metro Station entrance and will be supported on a pile foundation system. An analysis was performed to develop axial pile capacities of a 24-inch diameter cast-in-place concrete pile. The analysis indicates an embedment depth of 30 feet will provide an allowable capacity of 120 kips. Information on the Pershing Square Metro Station entrance and associated improvements, including locations, dimensions and depth, are not currently available. Depending on the distance and surcharge load allowed on the existing improvements, an isolation casing may be required for a portion of the pile to separate it from the surrounding soils and reduce the potential for surcharging the existing improvements. The actual pile length should be determined when structural loads and the additional information on the subway structure becomes available.

3.3 Seismic Design Parameters

Strong ground shaking due to seismic activity is anticipated at the site. The following values may be used for the seismic design method based on the 2013 California Building Code (CBC).

Table 1 – 2013 CBC Seismic Design Parameters

Categorization/Coefficient	Design Value
Site Class	D
Short Period (0.2 sec) Site Coefficient, F_a	1.0
Long Period (1.0 sec) Site Coefficient, F_v	1.5
Design (5% damped) spectral response acceleration parameter at short period, S_{DS}	1.604
Design (5% damped) spectral response acceleration parameter at a period of 1 sec, S_{D1}	0.844g

3.4 Lateral Earth Pressures

The following lateral earth pressures may be used for the design of retaining walls with a level backfill.

Table 2 – Lateral Earth Pressures

Condition	Equivalent Fluid Unit Weight for Level Backfill (psf/ft)
Active	35
Seismic Increment	25
At-Rest	55
Passive	350
Coefficient of Friction	0.30

Retaining structures should be provided with a drainage system to prevent buildup of hydrostatic pressure behind the wall. Hydrostatic pressure should be included in the retaining wall design if a drainage system is not provided. The above values do not contain an appreciable factor of safety, so the structural engineer should apply the applicable factors of safety and/or load factors during design.

To design an unrestrained retaining wall, such as a cantilever wall, the active earth pressure may be used. For a restrained retaining wall, such as a basement wall, curved walls without joints or restrained-wall corners, the at-rest pressure

should be used. If tilting of wall segments are acceptable and construction joints are provided at all angle points and frequently along curved-wall segments, preferably not exceeding 20 feet, the active pressure may be used.

For sliding resistance, a friction coefficient of 0.30 may be used at the soil-concrete interface. The lateral passive resistance can be taken into account only if it is ensured that the soil against embedded structures will remain intact with time.

In addition to the above lateral forces due to retained earth, surcharge due to improvements, such as an adjacent structure, should be considered in the design of the retaining wall. Loads applied within a 1:1 projection from the surcharging structure on the stem of the wall shall be considered as lateral surcharge. For lateral surcharge conditions, we recommend utilizing a horizontal load equal to 50 percent of the vertical load, as a minimum. This horizontal load should be applied below the 1:1 projection plane. To minimize the surcharge load from an adjacent building, deepened building footings may be considered.

3.5 Cement Type and Corrosion Protection

Based on the results of laboratory testing, concrete structures in contact with the onsite soil are expected to have negligible exposure to water-soluble sulfates in the soil. Common Type II cement may be used for concrete construction onsite and the concrete should be designed in accordance with CBC requirements. However, concrete exposed to recycled water should be designed using Type V cement.

Based on our laboratory testing, the onsite soil is considered corrosive to ferrous metals. Ferrous pipe should be avoided by using high-density polyethylene (HDPE) or other non-ferrous pipe when possible. Ferrous pipe, if used, should be protected by polyethylene bags, tap or coatings, di-electric fittings or other means to separate the pipe from onsite soils.

3.6 Trench Backfill

Utility trenches can be backfilled with the onsite material, provided it is free of debris, organic material and oversized material (greater than 8 inches in diameter). Prior to backfilling the trench, pipes should be bedded in and covered with sand that exhibits a Sand Equivalent (SE) of 30 or greater. The pipe bedding should be densified in-place using mechanical compaction equipment

with care to not damage the pipe. The native backfill should be placed in lifts, moisture conditioned as necessary to achieve a moisture content 2 to 4 percentage points above optimum, and mechanically compacted using a minimum standard of 90 percent relative compaction. The maximum lift thickness should also be determined based on the compaction equipment used in accordance with the latest edition of the *Standard Specifications for Public Works Construction* (SSPWC). Where utility trenches cross underneath building footing, the trenches should be plugged by a minimum of 2 feet of onsite soil or sand/cement slurry to reduce the potential for water intrusion underneath the slab.

3.7 Future Geotechnical Evaluation

Geotechnical recommendations presented in this report are preliminary based on the information gained from review of available documents and limited field exploration. The nature of many sites is such that differing geotechnical or geological conditions can occur within small distances and under varying climatic conditions. Changes in subsurface conditions can and do occur over time. Therefore, additional field exploration may be required based on the final project plans and structural loads. Additionally, adjacent existing improvements that may be impacted by the proposed development should be evaluated and mitigation measures should be developed, where necessary.

The preliminary recommendations in this report should be revised, as necessary, based on the actual soil conditions and any modification of the current plans during the design development phase.

4.0 CONSTRUCTION CONSIDERATIONS

4.1 Temporary Excavation

All temporary excavations, including utility trenches and retaining wall excavations, should be performed in accordance with project plans, specifications and all OSHA requirements.

No surcharge loads should be permitted within a horizontal distance equal to the height of cut or 5 feet, whichever is greater from the top of the slope, unless the cut is shored appropriately. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structures.

During construction, the soil conditions should be regularly evaluated to verify that conditions are as anticipated. The contractor should be responsible for providing the "competent person" required by OSHA standards to evaluate soil conditions. Close coordination between the competent person and the geotechnical engineer should be maintained to facilitate construction while providing safe excavations.

4.2 Temporary Shoring

Excavation for construction of the subterranean levels may be supported by several methods, including conventional soldier piles, sheet piles or tiebacks, to name a few. The choice should be left to the contractor's judgment since economic considerations and/or the individual contractor's construction experience may determine which method is more economical and/or appropriate. Support of all adjacent existing structures without distress is the contractor's responsibility. These shoring systems adjacent to existing structures should be designed by a California licensed civil or structural engineer.

Typical cantilever shoring should be designed based on the active fluid pressure presented for retaining walls in Section 3.4. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to $23H$, where H is equal to the depth of the excavation being shored.

It should be the contractor's responsibility to undertake a pre-construction survey with benchmarks and photographs of the adjacent structure(s). The contractor should be aware of the granular nature of the soils, being careful to guard against potential for sloughing and caving of excavation sides. This is for both human safety and safety of the improvements being shored. The contractor and shoring designer should perform additional geotechnical studies as necessary to refine the means and methods of shoring construction.

4.3 Temporary Dewatering

Temporary dewatering will be required during excavation for construction of the subterranean parking structure. Using a portable pump to lower the groundwater level in the monitoring wells, the groundwater inflow was measured at approximately one gallon per minute for the zone between 10 and 20 feet below grade. No groundwater recharge was measured for a test period of two hours in the zone between 25 and 35 feet. These test results are preliminary and intended to provide a rough assessment of the amount of groundwater. A pump test should be performed to evaluate the hydraulic conductivity of the soils, if desired. To minimize the potential for impacting the surrounding improvements during construction, we recommend using localized sump pumps within the excavation to remove the groundwater that enters the excavation. Due to the presence of soils with relatively low permeability, a well-point system will not be a viable option for dewatering. It is the responsibility of the contractor to design and install the dewatering system. The contractor should anticipate that continuous pumping of groundwater may be required during the excavation. Discharge of groundwater during excavation should comply with all environmental regulations.

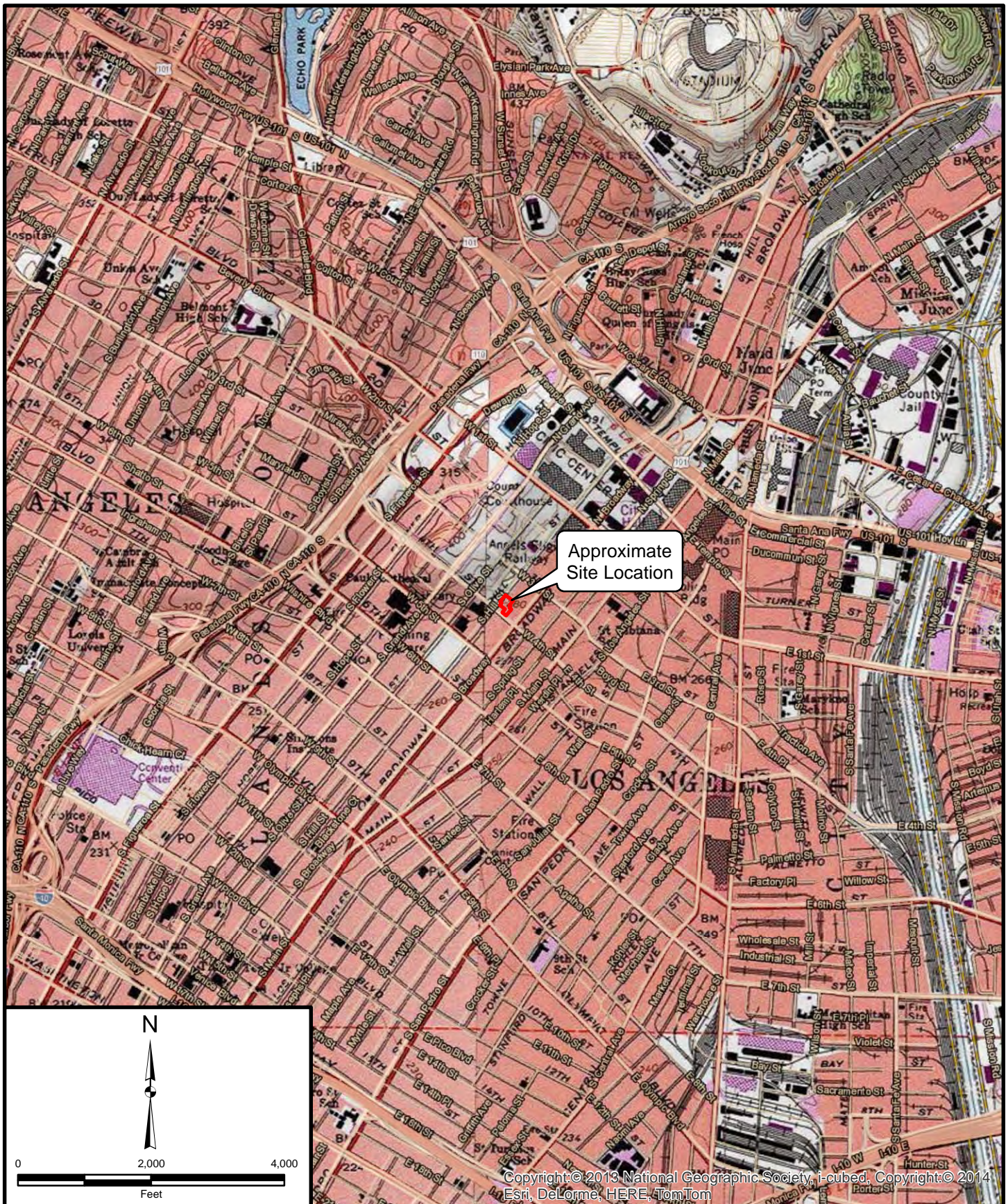
5.0 LIMITATIONS

Our professional services were performed in accordance with the prevailing standard of professional care as practiced by other geotechnical engineers in the area. We make no other warranty either expressed or implied. The report may not be used by others or for other projects without the expressed written consent of our client and our firm.

DRAFT

6.0 REFERENCES

- American Concrete Institute, 2011, Building Code Requirements for Structural Concrete (ACI 318-11) and Commentary, 2011.
- Bryant, W.A., and Hart, E.W., 2007, Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 2007 Interim Revision.
- California Geological Survey (formerly California Division of Mines and Geology), 1998, Revised 2006, Seismic Hazard Zone Report for the Los Angeles, California 7.5-Minute Quadrangle Map, Seismic Hazard Zone Report No. 029.
- _____, 1999, State of California Seismic Hazards Zones Map, Los Angeles Quadrangle, dated March 25, 1999.
- _____, 2000, CD-ROM containing digital images of Official Maps of Alquist-Priolo Earthquake Fault Zones that affect the Southern Region, DMG CD 2000-003 2000.
- Cao, T., Bryant, W.A., Rowshandel, B., Branum, D., and Wills, C.J., 2003, The Revised 2002 California Probabilistic Seismic Hazard Maps, dated June 2003, 11p. Accessible at <http://www.consrv.ca.gov/cgs/rghm/psha/index.htm>
- Dibblee, Jr., T.W., 1991, Geologic Map of the Hollywood and Burbank (South ½) Quadrangles, Los Angeles County, California: Dibblee Geological Foundation Map DF-30, Santa Barbara, California, scale 1:24,000.
- United States Geological Survey (USGS), 2011, Seismic Hazard Curves and Uniform Hazard Response Spectra, Version 5.1.0, Dated February 10, 2011.
- Yerkes, R.F., McCulloh, T.H., Schoellhamer, J.E. and Vedder, J.G., 1965, Geology of the Los Angeles Basin, California -- An Introduction: U.S. Geological Survey, Professional Paper 420-A, 57 p.
- Yerkes, R.F., 1972, Geology and Oil Resources of the Western Puente Hills Area, Southern California: U.S. Geological Survey Professional Paper 420-C, 63 p.



Project: 10705.001	Eng/Geol: DJC
Scale: 1" = 2,000'	Date: June 2014
Base Map: ESRI ArcGIS Online 2014 Thematic Information: Leighton Author: Leighton Geomatics (mmurphy)	

SITE LOCATION MAP

348 South Hill Street
City of Los Angeles, California

Figure 1

Leighton

Legend

LB-4 Approximate Location of Geotechnical Boring with Total Depth and Depth to Groundwater in feet

T.D.81.5'
No G.W.

Approximate Site Boundary



BORING LOCATION MAP

348 South Hill Street
City of Los Angeles, California

Figure 2



Leighton

Project: 10705.001 Eng/Geol: DJC

Scale: 1" = 60' Date: June 2014

Base Map: ESRI ArcGIS Online 2014
Thematic Information: Leighton
Author: Leighton Geomatics (mmurphy)

APPENDIX A

GEOTECHNICAL BORING LOG LB-1

Project No.	10705.001	Date Drilled	5-21-14
Project	Equity Residential - 4th Street and Hill	Logged By	JWJ
Drilling Co.	2R Drilling, Inc.	Hole Diameter	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	Ground Elevation	280'
Location	See Figure 2 - Boring Location Map	Sampled By	JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>										
280	0								<p>@Surface: 6-inches Asphalt Concrete over 3-inches Aggregate Base</p> <p>Artificial fill, undocumented: (Afu)</p> <p>@9-inches: SAND, with trace clay, brown, moist, fine grained, trace fine to coarse (3-inch minus) subangular gravels, brick fragments, rubble</p> <p>@1': Grades to Clayey SAND, reddish brown, moist</p>	
275	5		R-1 B-1 (5-10')	7 19 30	120	10	CL SP-GP	<p>Quaternary alluvium: (Oa)</p> <p>@5': CLAY, very stiff, dark brown, moist, thin interbedded fine grained sand lenses, angular granitic gravels</p> <p>Quaternary older alluvium: (Ooa)</p> <p>@6': Becomes Clayey SAND with Gravel, dense, orange to olive brown, moist, abundant subangular gravels (1 to 2-inch)</p>		
270	10		R-2	40 50 50/3.5"	124	4	SC	<p>@10': Hard drilling, Clayey SAND with Gravel, very dense, reddish brown to dark brown, abundant subangular gravels, weakly developed thin laminations, poor blocky structure</p>		
265	15		R-3	70 70/6"			SM	<p>@15': Silty SAND, very dense, dark gray to olive brown, moist, fine grained, strong hydrocarbon odor, 4-inch rounded cobble wedged in sampler, trace clay</p>		
260	20		R-4	61 70/6"	83	58	SP-GP	<p>@20': SAND with Gravel, very dense, olive gray to dark gray, wet - perched groundwater encountered, fine to coarse grained, abundant fine gravels (1-inch), subangular</p>		
255	25	R-5	13 30 53	100	25	Tfr	<p>Fernando formation: (Tfr)</p> <p>@25': Clayey SILTSTONE, hard, dark bluish gray, very moist, massive, no laminations</p> <p>@26.1': Groundwater measured at 0950 Hours, 5/21/2014</p>			
250	30									

SAMPLE TYPES:
B BULK SAMPLE
C CORE SAMPLE
G GRAB SAMPLE
R RING SAMPLE
S SPLIT SPOON SAMPLE
T TUBE SAMPLE

TYPE OF TESTS:
-200 % FINES PASSING
AL ATTERBERG LIMITS
CN CONSOLIDATION
CO COLLAPSE
CR CORROSION
CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
EI EXPANSION INDEX
H HYDROMETER
MD MAXIMUM DENSITY
PP POCKET PENETROMETER
RV R VALUE

SA SIEVE ANALYSIS
SE SAND EQUIVALENT
SG SPECIFIC GRAVITY
UC UNCONFINED COMPRESSIVE STRENGTH

SAMPLE TYPES:

B BULK SAMPLE
C CORE SAMPLE
G GRAB SAMPLE
R RING SAMPLE
S SPLIT SPOON SAMPLE
T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
AL ATTERBERG LIMITS
CN CONSOLIDATION
CO COLLAPSE
CR CORROSION
CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
EI EXPANSION INDEX
H HYDROMETER
MD MAXIMUM DENSITY
PP POCKET PENETROMETER
RV R VALUE

SA SIEVE ANALYSIS
SE SAND EQUIVALENT
SG SPECIFIC GRAVITY
UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-1

Project No.	10705.001	Date Drilled	5-21-14
Project	Equity Residential - 4th Street and Hill	Logged By	JWJ
Drilling Co.	2R Drilling, Inc.	Hole Diameter	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	Ground Elevation	280'
Location	See Figure 2 - Boring Location Map	Sampled By	JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION <small><i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i></small>	Type of Tests
250	30	N S		R-6	13 39 49			Tfr	@30': Clayey SILTSTONE, hard, dark bluish gray, very moist, massive, no laminations, trace CaCO ₃	
245	35			R-7	25 43 50/5"	101	25		@35': Trace CaCO ₃ stringers, trace dark brown clay nodules, moist	
240	40			SPT-1	10 12 18				@40': Trace very fine grained micaceous sand between pedogenic faces	
235	45			R-8	13 50/4"	101	24			
230	50			SPT-2	8 37 50/4"				@50': Trace angular fine gravels	
225	55			R-9	33 52/6"	98	26		@55': Sandy SILTSTONE, hard, dark bluish gray, moist, very fine grained sand, massive	
220	60									

SAMPLE TYPES:

B BULK SAMPLE

C CORE SAMPLE

G GRAB SAMPLE

R RING SAMPLE

S SPLIT SPOON SAMPLE

T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING

AL ATTERBERG LIMITS

CN CONSOLIDATION

CO COLLAPSE

CR CORROSION

CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR

EI EXPANSION INDEX

H HYDROMETER

MD MAXIMUM DENSITY

PP POCKET PENETROMETER

RV R VALUE

SA SIEVE ANALYSIS

SE SAND EQUIVALENT

SG SPECIFIC GRAVITY

UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-1

Project No. 10705.001
Project Equity Residential - 4th Street and Hill
Drilling Co. 2R Drilling, Inc.
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Figure 2 - Boring Location Map

Date Drilled 5-21-14
Logged By JWJ
Hole Diameter 8"
Ground Elevation 280'
Sampled By JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	
220	60			SPT-3	16 31 52/6"			Tfr	@60': Sandy SILTSTONE, hard, dark bluish gray, moist, very fine grained sand, massive, abundant CaCO ₃ stringers and nodules	
215	65			SPT-4	13 22 50					
210	70			SPT-5	12 17 23					
205	75			SPT-6	16 24 32					
200	80			SPT-7	15 23 32					
195	85								Total Depth of Boring: 81.5 feet bgs Groundwater encountered at 26.1 feet bgs Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Cuttings from 30-81.5 feet used to backfill boring; excess cuttings placed in DOT-approved drums and taken off site for disposal. Boring capped with 6-inches Cold Patch Mix Asphalt upon completion of backfill.	
190	90									

SAMPLE TYPES:

B BULK SAMPLE
 C CORE SAMPLE
 G GRAB SAMPLE
 R RING SAMPLE
 S SPLIT SPOON SAMPLE
 T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
 AL ATTERBERG LIMITS
 CN CONSOLIDATION
 CO COLLAPSE
 CR CORROSION
 CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
 EI EXPANSION INDEX
 H HYDROMETER
 MD MAXIMUM DENSITY
 PP POCKET PENETROMETER
 RV R VALUE

SA SIEVE ANALYSIS
 SE SAND EQUIVALENT
 SG SPECIFIC GRAVITY
 UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-2/MW-1

Project No.	10705.001	Date Drilled	5-22-14
Project	Equity Residential - 4th Street and Hill	Logged By	JWJ
Drilling Co.	2R Drilling, Inc.	Hole Diameter	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	Ground Elevation	278'
Location	See Figure 2 - Boring Location Map	Sampled By	JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION <i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	Type of Tests
0	0	N S							@Surface: 6-inches Asphalt Concrete over 1.5 feet Rubble Artificial fill, undocumented: (Afu)	
275								CL	@2': Sandy CLAY, orange brown to dark brown, moist, trace brick fragments	
5				R-1	5 3 2	76	18	SC	@5': Clayey SAND, very loose, dark brown mottled with pockets of white fine grained sand, moist, trace fine subrounded gravels, trace brick fragments	
270										
10				R-2 B-1 (10-15')	44 38 36	127	4	SP-GP	Quaternary older alluvium: (Ooa) @10': SAND with Gravel, dense, olive brown to dark brown to orange brown, mottled, moist, fine to coarse grained sand, fine weathered granitic gravels, trace coarse subrounded to rounded granitic gravels, trace clay	
265										
15				R-3	32 42 50/5.5"	134	5		@15': Becomes wet, coarse grained sand and fine subangular to subrounded granitic gravels @16.2': Groundwater measured at 0924 Hours, 5/22/2014	
260										
20				R-4	9 17 23	93	29	Tfr	Fernando formation: (Tfr) @20': Clayey SILTSTONE, very stiff, dark bluish gray, moist, fine grained, massive, trace CaCO ₃ rock fragments	
255										
25				R-5	19 37 50/6"	100	25		@25': Becomes hard, trace bi-valve shell fragments	
250										
30										

SAMPLE TYPES:

B BULK SAMPLE
C CORE SAMPLE
G GRAB SAMPLE
R RING SAMPLE
S SPLIT SPOON SAMPLE
T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
AL ATTERBERG LIMITS
CN CONSOLIDATION
CO COLLAPSE
CR CORROSION
CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
EI EXPANSION INDEX
H HYDROMETER
MD MAXIMUM DENSITY
PP POCKET PENETROMETER
RV R VALUE

SA SIEVE ANALYSIS
SE SAND EQUIVALENT
SG SPECIFIC GRAVITY
UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-2/MW-1

Project No.	10705.001	Date Drilled	5-22-14
Project	Equity Residential - 4th Street and Hill	Logged By	JWJ
Drilling Co.	2R Drilling, Inc.	Hole Diameter	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	Ground Elevation	278'
Location	See Figure 2 - Boring Location Map	Sampled By	JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	
30				R-6	24 46 50/4"	101	24	Tfr	@30': Clayey SILTSTONE, hard, bluish gray, moist, trace CaCO ₃ stringers, trace micaceous very fine sand grains between pedogenic faces, weak laminations	
245				SPT-1	3 9 13		26			
35										
240										
40				R-7	21 40 46					
235										
45				SPT-2	8 12 14		29		@45': Olive gray to bluish gray, CaCO ₃ stringers, trace wood debris, trace fine grained tan clayey sand	
230										
50				R-8	29 50/5"					
225										
55				SPT-3	6 10 16		26		@55': Mollusc shell - in tact (<1/2-inch)	
220										
60										

SAMPLE TYPES:

B BULK SAMPLE

C CORE SAMPLE

G GRAB SAMPLE

R RING SAMPLE

S SPLIT SPOON SAMPLE

T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING

AL ATTERBERG LIMITS

CN CONSOLIDATION

CO COLLAPSE

CR CORROSION

CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR

EI EXPANSION INDEX

H HYDROMETER

MD MAXIMUM DENSITY

PP POCKET PENETROMETER

RV R VALUE

SA SIEVE ANALYSIS

SE SAND EQUIVALENT

SG SPECIFIC GRAVITY

UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-2/MW-1

Project No. 10705.001
Project Equity Residential - 4th Street and Hill
Drilling Co. 2R Drilling, Inc.
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Figure 2 - Boring Location Map

Date Drilled 5-22-14
Logged By JWJ
Hole Diameter 8"
Ground Elevation 278'
Sampled By JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	
60				R-9	30 52/6"			Tfr	@60': Clayey SILTSTONE, hard, olive gray to bluish gray, moist, CaCO ₃ stringers, trace wood fragments, interbedded dark and light gray laminations	
215				SPT-4	10 15 22					
65				SPT-5	10 23 29				@70': Cross-bedding, well defined thin dark gray and light gray laminations, abundant CaCO ₃ and sea shells	
210				SPT-6	10 15 24				@75': Massive, no sea shells	
70				SPT-7	10 12 24				@80': CaCO ₃ stringers and nodules, sea shell fragments	
205									Total Depth of Boring: 81.5 feet bgs Groundwater encountered at 16.2 feet bgs Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Monitoring Wells MW-1a/1b installed with Traffic-Rated Well Cover in parking stall. Slotted screen for MW-1a at 35-25 feet bgs; for MW-1b at 20-10 feet bgs. Annulus filled with sand, cuttings, and bentonite plugs between screened intervals. Screened interval annulus filled with No. 3 Monterey Sand. Excess cuttings disposed of in DOT-approved drums and taken off site.	
75										
200										
80										
195										
85										
190										
90										

SAMPLE TYPES:

B BULK SAMPLE
C CORE SAMPLE
G GRAB SAMPLE
R RING SAMPLE
S SPLIT SPOON SAMPLE
T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
AL ATTERBERG LIMITS
CN CONSOLIDATION
CO COLLAPSE
CR CORROSION
CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
EI EXPANSION INDEX
H HYDROMETER
MD MAXIMUM DENSITY
PP POCKET PENETROMETER
RV R VALUE

SA SIEVE ANALYSIS
SE SAND EQUIVALENT
SG SPECIFIC GRAVITY
UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-3

Project No.	10705.001	Date Drilled	5-21-14
Project	Equity Residential - 4th Street and Hill	Logged By	JWJ
Drilling Co.	2R Drilling, Inc.	Hole Diameter	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	Ground Elevation	278'
Location	See Figure 2 - Boring Location Map	Sampled By	JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION <i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	Type of Tests
	0	N S							@Surface: 4-inches Asphalt Concrete over 4-inches Sandy CLAY, 2-inches Previous Asphalt Surface, 14-inches Rubble Artificial fill, undocumented: (Afu) @4-inches: Sandy CLAY, olive brown to light orange brown, moist, fine to coarse grained sand, trace pebble sized gravels, strong asphaltic odor @2': CLAY, dark gray, moist, trace fine grained sand, poorly developed blocky structure	
275	5			B-1 (2-5') R-1 B-2 (5-10')	8 15 22	117	15	CL	@5.5': Becomes Sandy CLAY, stiff, reddish brown, moist, very fine to fine grained sand, poorly developed blocky structure	
270	10			R-2	12 42 50/4"			SP-GP	Quaternary older alluvium: (Qoa) @10': SAND with Gravel, very dense, olive gray brown to orange brown, moist, fine to coarse grained sand, with subrounded to subangular coarse sand grains and granitic gravels (weathered)	
265	15			R-3	50/4" 50/3"	133	5		@15': SAND, olive brown, wet, trace fine subangular gravels, trace clay, poor recovery	
260	20			R-4	9 15 19	92	30	Tfr	@19.5': Groundwater measured at 1558 Hours, 5/21/2014 Fernando formation: (Tfr) @20': SILTSTONE, bluish gray, moist, trace very fine grained micaceous sand, dark orange brown lamination at bottom of sample	
255	25			R-5	20 34 50/6"	98	26			
250	30									

SAMPLE TYPES:

B BULK SAMPLE
C CORE SAMPLE
G GRAB SAMPLE
R RING SAMPLE
S SPLIT SPOON SAMPLE
T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
AL ATTERBERG LIMITS
CN CONSOLIDATION
CO COLLAPSE
CR CORROSION
CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
EI EXPANSION INDEX
H HYDROMETER
MD MAXIMUM DENSITY
PP POCKET PENETROMETER
RV R VALUE

SA SIEVE ANALYSIS
SE SAND EQUIVALENT
SG SPECIFIC GRAVITY
UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-3

Project No. 10705.001
Project Equity Residential - 4th Street and Hill
Drilling Co. 2R Drilling, Inc.
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Figure 2 - Boring Location Map

Date Drilled 5-21-14
Logged By JWJ
Hole Diameter 8"
Ground Elevation 278'
Sampled By JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
									<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	
30		N S		R-6	24 40 50/5"			Tfr	@30': SILTSTONE, bluish gray, moist, trace very fine grained micaceous sand	
245				R-7	27 50/6"	97	27			
35				SPT-1	9 14 25				@40': CaCO ₃ stringers	
240										
40				R-8	29 50/5"	100	25		@45': Abundant CaCO ₃	
235										
45				SPT-2	9 13 17				@50': Trace wood fragments, trace clay nodules, trace sea shells	
230										
50										
225									Total Depth of Boring: 51.5 feet bgs Groundwater encountered at 19.5 feet bgs Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Cuttings from 30-51.5 feet used to backfill boring; excess cuttings placed in DOT-approved drums and taken off site for disposal. Boring capped with 6-inches Cold Patch Mix Asphalt upon completion of backfill.	
55										
220										
60										

SAMPLE TYPES:

B BULK SAMPLE
 C CORE SAMPLE
 G GRAB SAMPLE
 R RING SAMPLE
 S SPLIT SPOON SAMPLE
 T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
 AL ATTERBERG LIMITS
 CN CONSOLIDATION
 CO COLLAPSE
 CR CORROSION
 CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
 EI EXPANSION INDEX
 H HYDROMETER
 MD MAXIMUM DENSITY
 PP POCKET PENETROMETER
 RV R VALUE

SA SIEVE ANALYSIS
 SE SAND EQUIVALENT
 SG SPECIFIC GRAVITY
 UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-4

Project No. 10705.001
Project Equity Residential - 4th Street and Hill
Drilling Co. 2R Drilling, Inc.
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Figure 2 - Boring Location Map

Date Drilled 5-23-14
Logged By JWJ
Hole Diameter 8"
Ground Elevation 275'
Sampled By JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>										
275	0							SC	@Surface: 4-inches Asphalt Concrete over 4.5-foot Rubble Artificial fill, undocumented: (Afu)	
								GP	@4-inches: Clayey SAND, brown, moist, with subrounded gravels, brick fragments, trash @2': GRAVEL, subangular to subrounded, dry, hard drilling	
270	5		R-1 B-1 (5-10')	5 4 7	84	11		@5': Brick fragments in sampler		
265	10		R-2	30 86/6"	127	2	SP-GP	Quaternary older alluvium: (Qoa) @10': SAND with Gravel, very dense, olive brown to dark brown to orange brown, moist, fine to coarse grained sand, fine to coarse (2-inch) subangular gravels @12': Sandy CLAY to Clayey SAND, olive brown, moist, fine grained sand		
260	15		R-3 B-2 (15-20')	15 25 34			Tfr	Fernando formation: (Tfr) @15': Clayey SILTSTONE, dark bluish gray, dark orange brown, mottled at top of environmental sample, moist, fine grained, weakly laminated thin beds, cuttings pebble sized clay pods		
255	20			R-4	21 32 50/5"	100	24		@20': Becomes dark bluish gray, massive, trace CaCO ₃ stringers, trace shell fragments	
250	25			R-5	15 36 50/6"	95	28			
245	30									
<div><div><div>SAMPLE TYPES:</div><div>B BULK SAMPLE</div><div>C CORE SAMPLE</div><div>G GRAB SAMPLE</div><div>R RING SAMPLE</div><div>S SPLIT SPOON SAMPLE</div><div>T TUBE SAMPLE</div></div><div><div>TYPE OF TESTS:</div><div>-200 % FINES PASSING</div><div>AL ATTERBERG LIMITS</div><div>CN CONSOLIDATION</div><div>CO COLLAPSE</div><div>CR CORROSION</div><div>CU UNDRAINED TRIAXIAL</div></div><div><div>DS DIRECT SHEAR</div><div>EI EXPANSION INDEX</div><div>H HYDROMETER</div><div>MD MAXIMUM DENSITY</div><div>PP POCKET PENETROMETER</div><div>RV R VALUE</div></div><div><div>SA SIEVE ANALYSIS</div><div>SE SAND EQUIVALENT</div><div>SG SPECIFIC GRAVITY</div><div>UC UNCONFINED COMPRESSIVE STRENGTH</div></div></div>										

SAMPLE TYPES:

B BULK SAMPLE
 C CORE SAMPLE
 G GRAB SAMPLE
 R RING SAMPLE
 S SPLIT SPOON SAMPLE
 T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
 AL ATTERBERG LIMITS
 CN CONSOLIDATION
 CO COLLAPSE
 CR CORROSION
 CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
 EI EXPANSION INDEX
 H HYDROMETER
 MD MAXIMUM DENSITY
 PP POCKET PENETROMETER
 RV R VALUE

SA SIEVE ANALYSIS
 SE SAND EQUIVALENT
 SG SPECIFIC GRAVITY
 UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-4

Project No. 10705.001
Project Equity Residential - 4th Street and Hill
Drilling Co. 2R Drilling, Inc.
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Figure 2 - Boring Location Map

Date Drilled 5-23-14
Logged By JWJ
Hole Diameter 8"
Ground Elevation 275'
Sampled By JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	
245	30			R-6	12 43 50/5"	98	27	Tfr	@30': Clayey SILTSTONE, dark bluish gray, moist, fine grained, trace CaCO ₃ stringers, trace shell fragments	
240	35			SPT-1	9 15 19		25			
235	40			R-7	10 23 50/6"					
230	45			SPT-2	50/4"		26		@45': Massive, waxy texture between clay faces	
225	50			R-8	27 50/6"					
220	55			SPT-3	8 13 18		26			
215	60									

SAMPLE TYPES:

B BULK SAMPLE
 C CORE SAMPLE
 G GRAB SAMPLE
 R RING SAMPLE
 S SPLIT SPOON SAMPLE
 T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
 AL ATTERBERG LIMITS
 CN CONSOLIDATION
 CO COLLAPSE
 CR CORROSION
 CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
 EI EXPANSION INDEX
 H HYDROMETER
 MD MAXIMUM DENSITY
 PP POCKET PENETROMETER
 RV R VALUE

SA SIEVE ANALYSIS
 SE SAND EQUIVALENT
 SG SPECIFIC GRAVITY
 UC UNCONFINED COMPRESSIVE STRENGTH



GEOTECHNICAL BORING LOG LB-4

Project No. 10705.001
Project Equity Residential - 4th Street and Hill
Drilling Co. 2R Drilling, Inc.
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Figure 2 - Boring Location Map

Date Drilled 5-23-14
Logged By JWJ
Hole Diameter 8"
Ground Elevation 275'
Sampled By JWJ

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i>	
215	60			R-9	26 55/6"			Tfr	@60': Clayey SILTSTONE, dark bluish gray, moist, CaCO ₃ nodules and stringers, trace sea shells	
210	65			SPT-4	8 14 16					
205	70			SPT-5	9 14 18					
200	75			SPT-6	8 12 16					
195	80			SPT-7	14 17 28				@80': Trace sea shells, trace charcoal	
190	85								Total Depth of Boring: 81.5 feet bgs No free groundwater encountered Soil cuttings from 0 to 30 feet bgs placed in DOT-approved drums and taken off site for disposal. Cuttings from 30-81.5 feet used to backfill boring; excess cuttings placed in DOT-approved drums and taken off site for disposal. Boring capped with 6-inches Cold Patch Mix Asphalt upon completion of backfill.	
185	90									

SAMPLE TYPES:

B BULK SAMPLE
 C CORE SAMPLE
 G GRAB SAMPLE
 R RING SAMPLE
 S SPLIT SPOON SAMPLE
 T TUBE SAMPLE

TYPE OF TESTS:

-200 % FINES PASSING
 AL ATTERBERG LIMITS
 CN CONSOLIDATION
 CO COLLAPSE
 CR CORROSION
 CU UNDRAINED TRIAXIAL

DS DIRECT SHEAR
 EI EXPANSION INDEX
 H HYDROMETER
 MD MAXIMUM DENSITY
 PP POCKET PENETROMETER
 RV R VALUE

SA SIEVE ANALYSIS
 SE SAND EQUIVALENT
 SG SPECIFIC GRAVITY
 UC UNCONFINED COMPRESSIVE STRENGTH

