Addendum to the Certified Environmental Impact Report

The Metropolis Mixed-Use Project (Proposed Sign District)

City of Los Angeles, California

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I. INTRODUCTION

Purpose of the Addendum to the Certified EIR

The Metropolis Development consists of residential, hotel, and retail uses on a 6.3-acre site in Downtown Los Angeles. The main building addresses are: 899 Francisco Street, 889 Francisco Street, 877 Francisco Street and 1000 West 8th Street (also includes 811 Francisco Street and 1004, 1010, 1016, 1018, 1020, 1026, 1030, 1032 West 8th Street). As shown in **Figure 1**, *Regional and Vicinity Map*, the site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north. **Figure 2**, *Aerial Photograph*, provides an aerial view of the project site and its surroundings. The focus of this Addendum to the Metropolis Mixed-Use Project Environmental Impact Report (Addendum), as further described below, is on potential environmental effects associated with the establishment of a proposed Metropolis Sign District ("Sign District" or "Project"). The establishment of the Sign District, adopted by ordinance, would result in sign regulations which would be applicable to the Metropolis Development. A proposed draft Metropolis Sign District Ordinance ("Ordinance") has been submitted as part of the application and is part of the administrative file.

The Metropolis Development, which is currently under construction, is being completed in two phases. Phase 1 of the development was entitled by CRA/LA's approval of the Third Implementation Agreement to the Owner Participation Agreement in 2014 and by modification of the Project's Vesting Tentative Tract Map (VTTM 66352-M3) approved by the Advisory Agency on May 14, 2014. Phase 2 of the Project was entitled by CRA/LA's approval of the Fourth Implementation Agreement to the Owner Participation Agreement in 2015, ZA-2014-2221-ZV-SPR, which was approved on September 15, 2014, VTTM-66352-M4 approved on September 19, 2014, and VTTM-66352-M5 approved on December 21, 2015. Overall, the development will result in a 350-room hotel, 1,560 residential units, and approximately 74,903 square feet of retail space. The development consists of four towers. Parking will be provided in up to four levels of subterranean parking and eight levels above grade. A more detailed description of the Metropolis Development is provided below.

CEQA Authority for the Addendum Analysis Document

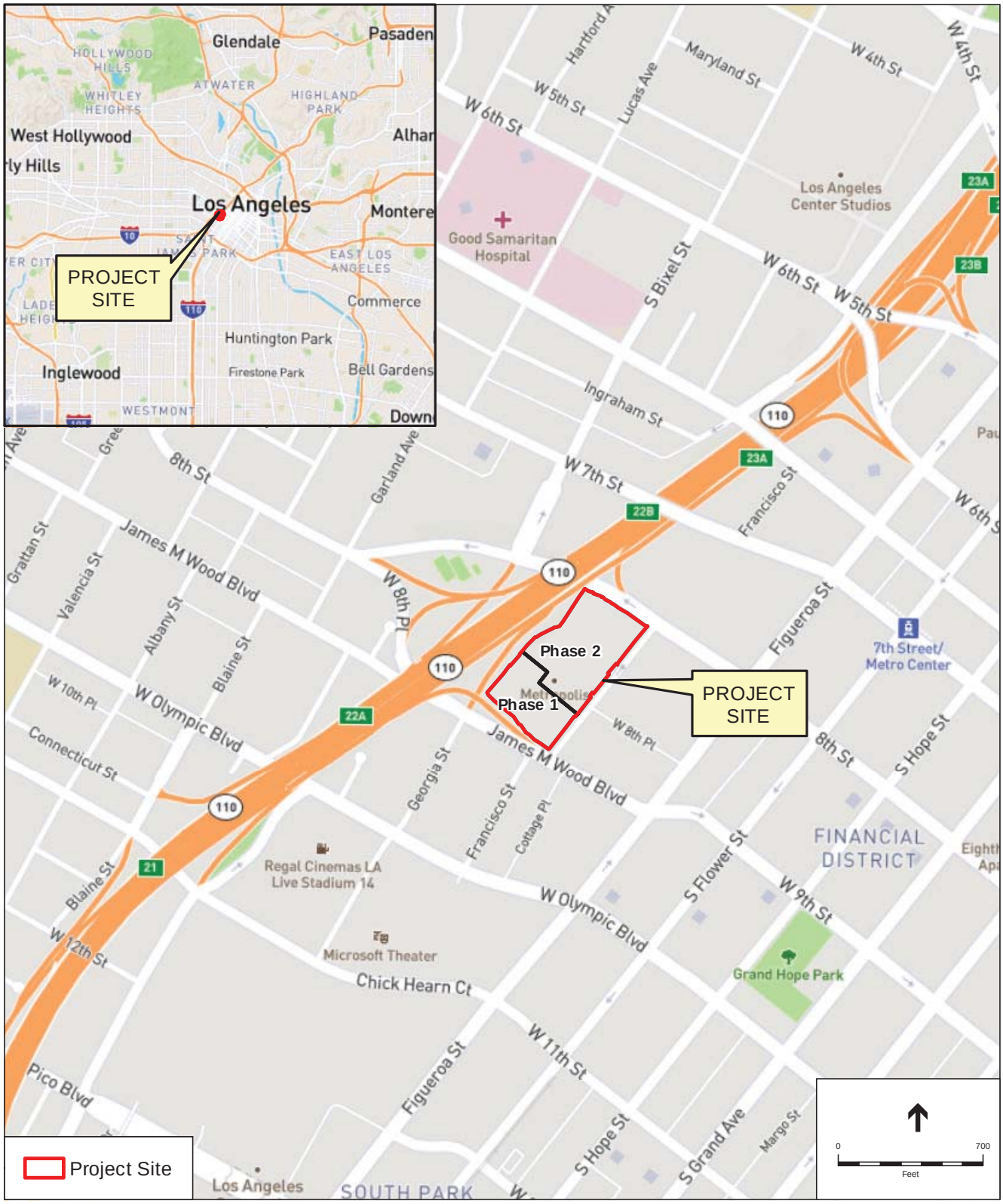
The California Environmental Quality Act and CEQA Guidelines establish the type of environmental documentation that is required when changes to a project occur after an EIR is certified. Section 15164(a) states that:

> *The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*

In order to give a degree of finality to EIR documentation, Section 15162 of the CEQA Guidelines requires that a Subsequent EIR need only be prepared if:

1. Substantial changes are proposed in the project, which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration,
    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR,
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative, or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The analysis in this Addendum evaluates the proposed Sign District to determine whether any new significant environmental impacts, which were not previously identified in the prior CEQA documentation for the Metropolis Development, would result or whether previously identified significant impacts would be substantially more severe. Section IV of this Addendum provides an analysis of the impacts of the Sign District compared with the impacts of the Metropolis Development as analyzed in prior CEQA documentation for the Metropolis Mixed-Use Project. It has been determined by the analysis herein, that none of the conditions requiring preparation of a subsequent EIR have occurred and that the Sign District would not result in additional significant impacts or a substantial increase in the severity of previously identified significant impacts. Thus, pursuant to CEQA, this Addendum is the appropriate documentation to address the proposed Sign District.



SOURCE: Open Street Map, 2016.

Metropolis Mixed-Use Project

Figure 1

Regional and Vicinity Map

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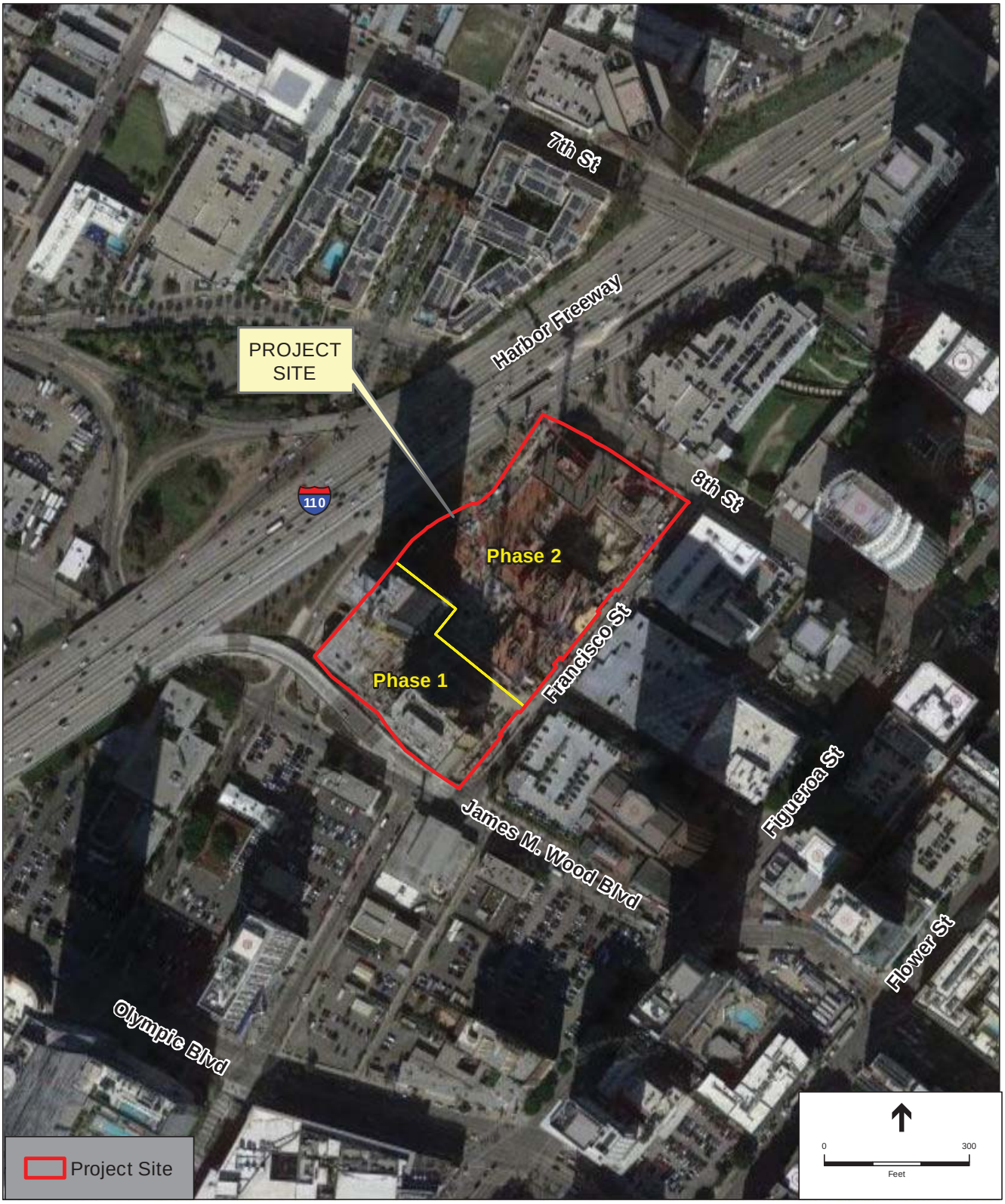

SOURCE: Google Maps, 2015 (Aerial).

Metropolis Mixed-Use Project

Figure 2

Aerial Photograph

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Background

The Metropolis Development has a long history dating back to 1989. The original proposal for the development of the site was a commercial project, including office, hotel, and retail floor area with a cultural component. A Final Environmental Impact Report (EIR) [SCH No. 1988062220] was certified and approved by the Community Redevelopment Agency of the City of Los Angeles (CRA/LA) on October 18, 1989 (Resolution No. 4066). No development occurred at that time however, and the site remained in use as a surface parking lot for years. Various modifications were proposed for the project over the years, each of which has been evaluated in subsequent environmental documents as discussed below.

In 2000 an Addendum to the 1989 certified EIR was approved (Resolution No. 5933) that evaluated on-site street vacation for segments of Florida Street, Eighth Place, and subsurface portions of Francisco Street, as well as associated amendments to the Owner Participation Agreement (OPA) and Development Agreement (DA). A 2005 Addendum evaluated an approximately 3.27 million gross square-foot development consisting of residential, office, hotel, and retail uses. A 2007 Supplement to the Certified EIR was prepared to address police services due to a CEQA challenge to the 2005 Addendum, where the Court of Appeals upheld the document in all respects except for the analysis of impacts on police services. A 2007 Addendum, which followed the Supplement, was prepared to address potential environmental effects associated with refinements to the Phase 1 residential tower of the Project that occurred due to final development plans prepared for that phase. A 2012 Addendum evaluated revisions to the Project due to significant changes in market conditions between 2007 and 2012, including reductions in the square footage, floor area ratio, and maximum building heights. In 2014 an Addendum was prepared that evaluated changes on the southern parcels (Phase 1). Phase 1 contains a hotel and a residential tower, and the changes included a reduction in the number of hotel rooms and total square footage, an increase in residential units, and changes in building heights. The 2015 Addendum evaluated changes to the development on the northern portion of the site (Phase 2). The changes included an increase in residential development, an increase in retail space, and elimination of a potential hotel and office floor area as well as an increase in the maximum building height.

This Addendum has been prepared with consideration of all of the above California Environmental Quality Act (CEQA) documents. All of the previous environmental documents are hereby incorporated by reference pursuant to CEQA Guidelines, Section 15150, and are available at CRA/LA, located at 448 S. Hill Street, 12th Floor, Los Angeles, CA 90013. This Addendum has been prepared to comply with CEQA in support of the discretionary approvals required for the Sign District for the Development.

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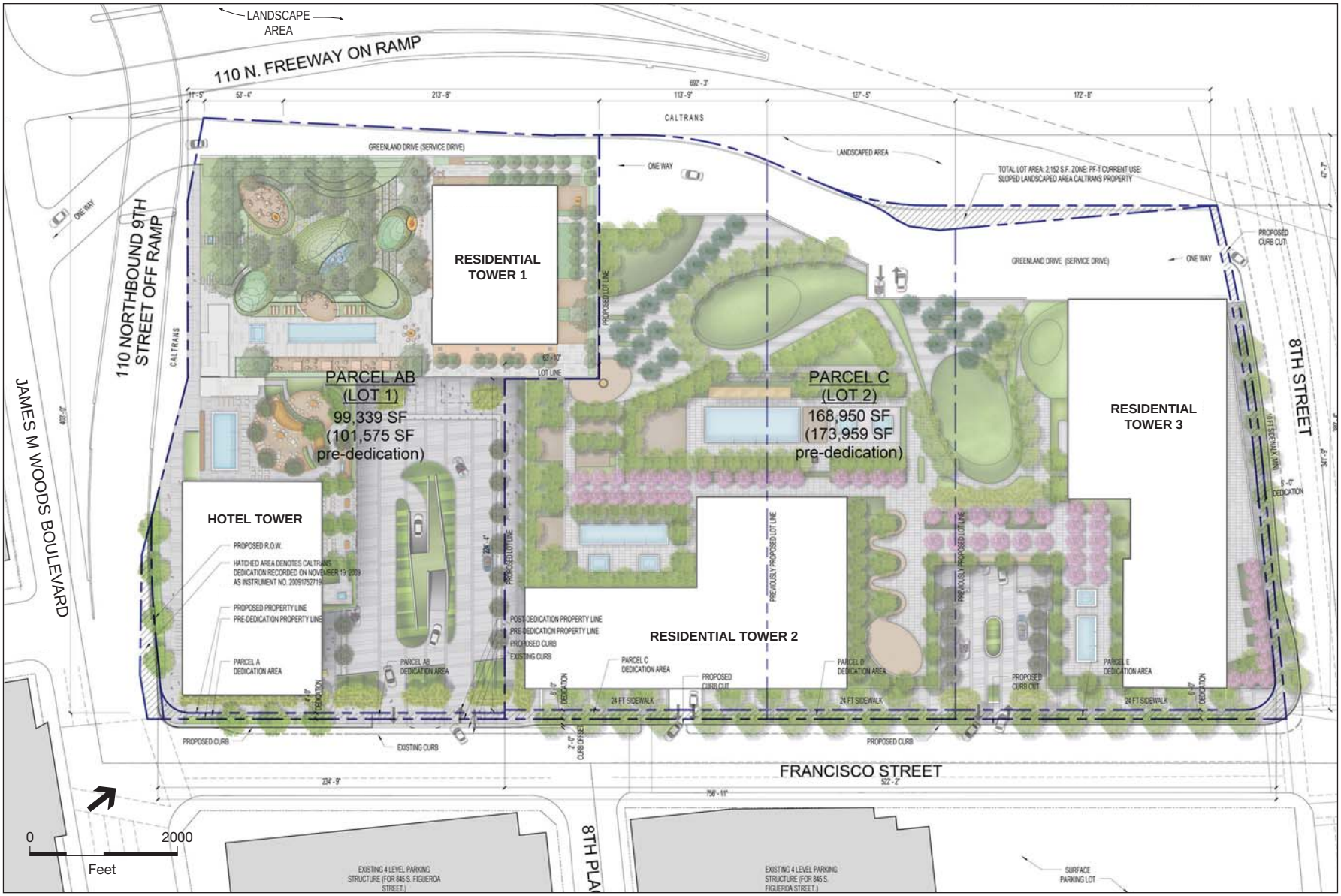
II. PROJECT DESCRIPTION

The Metropolis Development

The Metropolis Development, which is currently under construction, consists of four towers that are being developed in two phases. The Development will consist of a mix of hotel, residential, retail, and restaurant uses (see **Figure 3**, *Approved Development - Site Plan*). Phase 1 includes two towers located on the southern portion of the Project Site. One of the towers is occupied by a hotel (Hotel Tower), which is located atop a podium and consists of a 350-room hotel with up to 1,706 square feet of ground floor commercial uses. The second tower is a 38-story residential tower (Residential Tower 1), which is also constructed atop a podium. Residential Tower 1 contains 310 residential condominium units and up to 2,617 square feet of ground floor commercial uses. A motor court which fronts along Francisco Street would serve both of the buildings. Phase 2 of the Development is located on the northern portion of the Project Site and consists of two residential towers (Residential Towers 2 and 3) on a shared podium. Residential Towers 2 and 3 consist of a 40-story and a 56-story, respectively, buildings containing up to 1,250 residential condominium units in total and up to 67,107 square feet of commercial uses. The commercial uses will be located on the ground floor and the third floor of the shared podium.

The Hotel Tower sits atop a four-story podium, which includes ground level retail, a restaurant, hotel ancillary uses such as meeting rooms, fitness room and ballrooms. The Hotel includes an outdoor amenity deck with a pool and garden areas atop the podium and a lounge and sky bar on the 18th- story. There are two underground parking levels under the Hotel podium. Residential Tower 1 sits atop a 5-story podium which includes ground level retail, a mezzanine level with required bicycle parking and up to five levels of above grade parking and two levels of below grade parking. Residential Towers 2 and 3 sit atop an 8-story podium structure which also includes two levels of below grade parking. The residential towers include outdoor amenity decks with pools, spas, and garden areas atop the podium and indoor amenities such as fitness center resident lounges and screening rooms all of which will be available for residents and guests of the respective towers. At street-level, the podiums will serve as the public face for the Metropolis Development along Francisco Street and 8th Street. Double-height retail and restaurant space, residential units, public art, and a well-designed parking screen and an enhanced façade treatment will serve to screen the podiums as further detailed below.

The tower heights range from 260 feet to approximately 627 feet. The Metropolis Development incorporates a modern, grand, and dramatic architectural style, with a prominent articulation of the towers and their termination at the base and top.



SOURCE: Gensler, 2014

Metropolis Mixed-Use Project

Figure 3
Approved Development – Site Plan

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The towers are clad with clear vision glass with low reflectivity with glazing at street level to allow indoor functions to be visible from outside. The Residential Tower 1 podium will be fronted by commercial spaces and the residential lobby entrance on levels 1 to 2 and a public art installation spanning the façade on levels 3 to 5. Along Francisco Street, the Phase 2 Podium will be wrapped by commercial spaces and the Residential Tower 2 lobby on levels 1 to 4, residential units from levels 5 to 8, an outdoor garden terrace on level 5, and any remaining visible parking will be architecturally screened with an enhanced façade treatment. Along 8th Street, the Phase 2 Podium will be wrapped by commercial spaces and the Residential Tower 3 lobby on levels 1 to 4, residential units from levels 5 to 8, and any remaining visible parking will be architecturally screened with glass. The western façade of the podiums includes architectural treatments, such as folded sculptural aluminum screens and glass, which serve to screen the parking from the State Route-110 (Harbor Freeway). Other building materials include stone, aluminum and concrete.

With regard to circulation, the primary vehicular access to the site will be provided from Francisco Street, 8th Street, and James M. Wood Boulevard. Two primary landscaped driveways and plazas provide access points on Francisco Street and lead to courtyards between the buildings that provide access to the towers, the commercial uses and parking structure. A one-way private drive called Greenland Drive provides access from the western portion of 8th Street to James M. Wood Boulevard and to the parking areas and loading areas.

Digital public art has been installed on the eastern façade of Residential Tower 1 within the courtyard facing Francisco Street (see **Figure 4**, *Illustrative Plan for Public Art*). The rectangular public art is a digital installation on an LED screen that is approximately 14.75 feet by 97 feet for a total of approximately 1,430.75 square feet mounted in a frame on the eastern façade of Residential Tower 1. The public art has been deemed to be a Public Art Installation by the Department of Cultural Affairs, and is therefore, not part of the Sign District and is not considered a sign. All the necessary approvals and permits were obtained for the installation of the public art.[1] The southern courtyard serves as a drop off area for the various uses. The driveways adjacent to the plaza will allow pedestrians, vehicles, and bicyclists to enter and exit the site or proceed to the parking garage areas.

The Metropolis Development includes landscaped sidewalks and plazas to create a pedestrian friendly and vibrant streetscape environment. There is decorative wire mesh fencing with opening sized to meet Caltrans' requirements located at the corner of Francisco Street and James M. Wood Boulevard off-ramp. Landscaping will be provided in outdoor areas with a mix of trees, groundcover, shrubs, vines and large planters. Street trees will be provided along the perimeter of the site, along Francisco Street and Eighth Street. The sidewalk along Francisco Street will be a minimum of 24 feet in width and is a combination of the public right-of-way and private property and the sidewalk on 8th Street will be a minimum of 17 feet in width and is a combination of the public right-of-way and private property. A double row of staggered street trees will be planted along Francisco Street in front of the Phase 2 buildings.

[1] The public art is not a sign and is not proposed as part of the proposed Sign District. Nonetheless, for informational purposes and to ensure a comprehensive analysis, the light emanating from the public art has been included in the Lighting Technical Report prepared for the Project.

SOURCE: Gensler, 2016

Metropolis Mixed-Use Project

Figure 4
Illustrative Plan for Public Art

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Description of the Proposed Sign District

The Applicant, Greenland LA Metropolis Development II LLC ("Applicant"), is requesting the establishment of a Sign District, pursuant to Municipal Code Section 13.11. The proposed Sign District would provide sign regulations intended to allow signage that is generally consistent with unique characteristics of the Metropolis Development. The objectives of the proposed Sign District would be to:

- Provide unique and vibrant signage that will inform and attract visitors regarding the Metropolis Development's businesses and offerings.
- Provide regulations of signage to:
  - Ensure the quality of the Metropolis Development's appearance and further a vibrant environment;
  - Ensure that signs accentuate the architectural characteristics of the Metropolis Development by being responsive to and integrated with the aesthetic character of the structures on which they are located;
  - Ensure that signs are positioned in a manner that is compatible both architecturally and relative to the other signs on-site and surrounding uses;
  - Encourage creative, well-designed signs that contribute in a positive way to the visual environment of the automobile gateway to Downtown Los Angeles, the Avenue of Angels, the Design Project Area and the Community Plan area;
  - Ensure that signs visible from State Route-110 (Harbor Freeway) comply with State and Federal laws, regulations and agreements that apply to signs visible from such highway; and
  - Coordinate the location and display of signs so as to enhance the pedestrian realm, minimize potential traffic hazards, and protect public safety.

The Metropolis Development is located within the Central City Community Plan (Community Plan) area within the Convention Center Sphere of Influence. The Metropolis Development is consistent with the Community Plan objectives to encourage a mix of uses to create an active, 24-hour downtown environment to, among other things, foster increased tourism though the mix of commercial and residential uses. Given the mix of uses that will occur on the site, the proposed signs would provide the necessary information regarding the services and commercial uses that include but are not limited to hotel, retail and restaurant uses that would be located in the development so as to attract visitors and customers to ensure the overall economic viability of the development. The design of the proposed signs has been undertaken in a manner that integrates the signage with the architecture of the buildings.

The proposed system of signs and identity elements for the Metropolis Development is intended to contribute to a lively and colorful pedestrian atmosphere along the street frontages within the Convention Center Sphere of Influence, by having, in part, animated and illuminated signs and graphics that are compatible with the commercial, entertainment, and retail uses in the downtown

area. The Sign District would set forth requirements governing the allowable sign types, locations, maximum square footage, hours of operation, and type of animation or controlled refresh for the proposed signage. These requirements for proposed signage, and the Conceptual Sign Plan (identified below), are the basis of the analysis in this Addendum.

Proposed Signage and Sign Types

The Proposed Sign District would govern all signage with sign faces that are visible from any public right-of-way and would establish a unified identity for signs within the Metropolis Development. The Applicant proposes a total of 31,018 square feet of signage within the Sign District, excluding wayfinding and temporary signs. The Applicant proposes that the signage be distributed among the four street frontages and identifies a proposed sign area square footage for each of the four streets on which the Development fronts. **Table 1**, *Maximum Signage By Street Frontage*, presents the amount of square footage that would be provided on each frontage.[2]

TABLE 1
PROPOSED MAXIMUM SIGNAGE BY STREET FRONTAGE

	8th St.	Francisco St.	James M. Wood/9th St. Off-Ramp	State Route-110 (Harbor Freeway)	Total Amount of Proposed Signage
Maximum Sign Area (sf = square feet)	4,031 sf	7,889 sf	7,351 sf	11,747 sf	31,018 sf

Approximately 38 percent of the signage would be oriented towards State Route-110 (Harbor Freeway). Approximately 25 percent of the signage would be oriented towards Francisco Street and approximately 24 percent of the total signage would be oriented towards James M. Wood Boulevard/9th Street Off-Ramp. The 8th Street frontage would have the least amount of the total signage with 13 percent along this frontage.

The Sign District would include a variety of sign types such as:

- Canopy Sign
- Wall Sign
- Hanging Sign
- Window Sign
- Tall Building Sign
- Multi-Tenant Wall Sign
- Multi-Tenant Window Sign
- Special Event Signs
- Multi-Tenant Projecting Sign
- Multi-Tenant Pillar Sign
- Monument Sign
- Electronic Message Display Sign
- Full Motion Electronic Message Display Sign
- Full Motion Electronic Message Display Projecting Sign
- Temporary Signs

[2] The Applicant proposes that the Sign District allow the Director of Planning to make minor adjustments pursuant to LAMC Section 11.5.7.E relative to the total amount of signage permitted and the distribution of signage by street frontage. Such adjustments would not affect the analysis or conclusions in this Addendum.

The Sign District would contain sign types which may not currently be defined by the Los Angeles Municipal Code (LAMC). The Applicant has proposed to establish and define these sign types through the establishment of the Sign District. The proposed definitions of the signage proposed as part of the Sign District are contained within a draft Sign District Ordinance which was prepared by the Applicant and is located within the administrative file. Multi-Tenant signs are signs that contain logos, names or other identifying information for multiple individual tenants. Tall Building signs are identification signs located above 116 feet and are on the upper portion of a building. Electronic Message Display signs are signs that display still images through the use of electronic media or technology (such as light emitting diode displays) and that may change remotely through electronic means. Full Motion Electronic Message Display signs are Electronic Message Display Signs that include scrolling, moving or flashing images.

The Sign District would permit both On-Site and Off-Site signs and messages. Signs with copy that is visible from State Route-110 (Harbor Freeway) or any portion thereof, and that do not advertise the business conducted, services rendered, or goods produced or sold on the project site, would be required to maintain a minimum distance of 500 feet from one another, unless they are separated by buildings or other obstructions so that only one such sign is visible from the freeway at any one time.

The Sign District would prohibit the following sign types: internally illuminated awnings, conventional plastic faced box or cabinet signs, formed plastic faced box or injection molded plastic signs, luminous vacuum formed letters and wall murals or other types of signage from covering operable windows.

The Sign District would establish the maximum square footage permitted for each sign type. **Table 2**, *Maximum Area by Sign Type within the Sign District*, summarizes the amount of square-footage that would be permitted by sign type.[3]

[3] The Applicant proposes that the Sign District allow the Director of Planning to make minor adjustments to the distribution of signage by sign type. Such adjustments would not affect the analysis or conclusions in this Addendum.

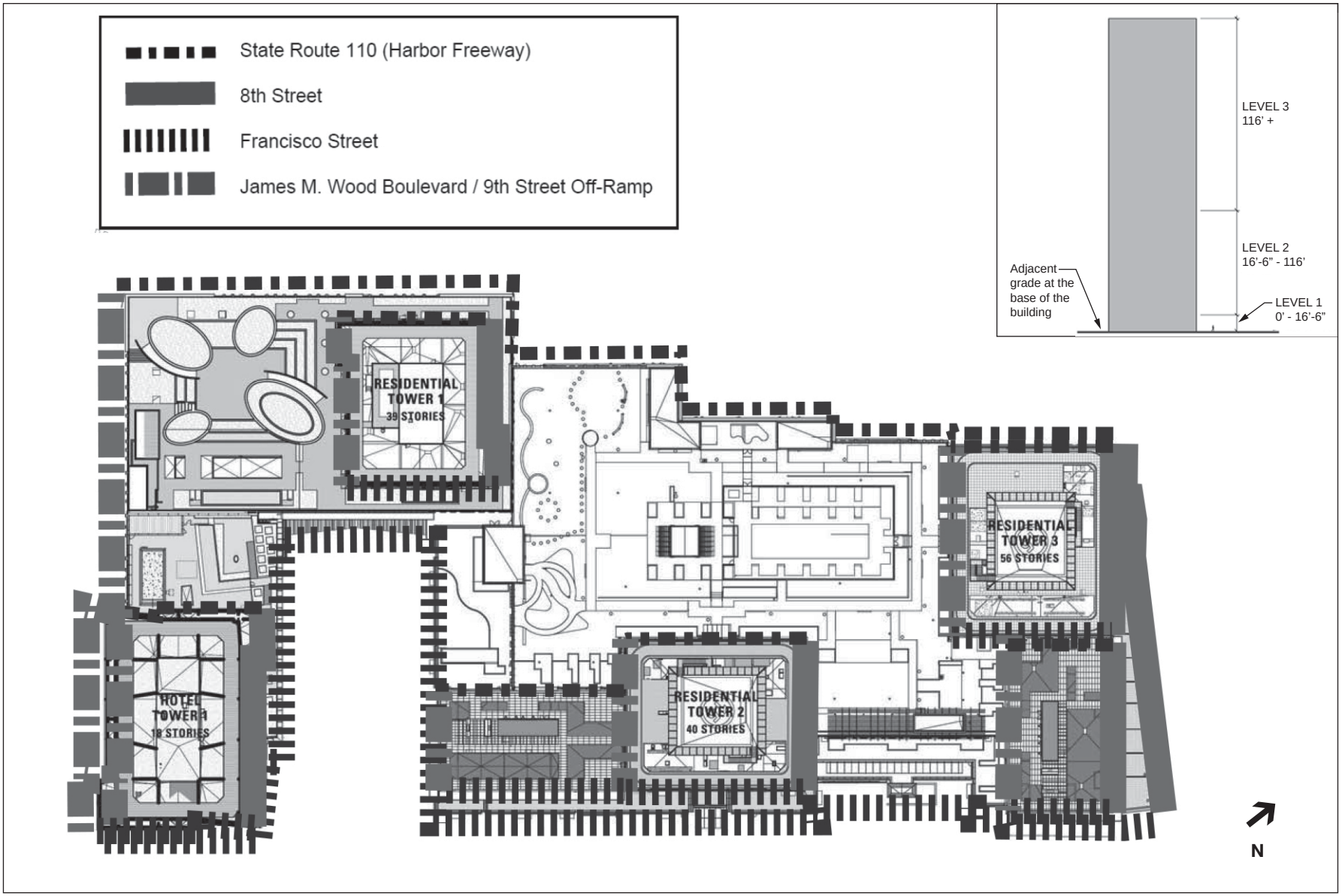
TABLE 2
MAXIMUM AREA BY SIGN TYPE WITHIN THE SIGN DISTRICT

Sign Type	Maximum Square Footage
Electronic Message Display Sign	10,516 sf
Full Motion Electronic Message Display Sign	3,935 sf
Full Motion Electronic Message Display Projecting Sign	404 sf
Monument Sign	94 sf
Canopy Sign	339 sf
Wall Sign	2,859 sf
Hanging Sign	325 sf
Window Sign	225 sf
Multi-Tenant Wall Sign	3,212 sf
Multi-Tenant Projecting Sign	1,728 sf
Multi-Tenant Pillar Sign	190 sf
Multi-Tenant Window Sign	1,927 sf
Tall Building Sign	5,264 sf
Total Square Footage	**31,018 sf**

Sign Locations

The Sign District would regulate the locations of signs relative to both horizontal and vertical planes. The Applicant has identified locations of the proposed signs by reference to Individual Sign Areas and Vertical Sign Zones, as shown in **Figure 5**, *Individual Sign Areas and Vertical Sign Zones Diagram*. Individual Sign Areas define horizontal planes and generally coincide with the four street frontages. Vertical Sign Zones define vertical planes. The purpose of the Individual Sign Areas and Vertical Sign Zones is to address the relationship between sign intensity with each street frontage and the vertical heights and to ensure that signs are compatible with and promote the Metropolis Development.[4]

[4] Minor adjustments to the definitions of the Individual Sign Areas and/or Vertical Sign Zones proposed by the Applicant would not affect the analysis in this Addendum.



SOURCE: Davies Associates, Inc., 2017

Metropolis Mixed-Use Project

Figure 5

Individual Sign Areas and Vertical Sign Zones Diagram

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More specifically, the Individual Sign Areas are: Francisco Street, 8th Street, State Route-110 (Harbor Freeway) and James M. Wood Boulevard/9th Street Off-Ramp from the State Route-110 (Harbor Freeway).

In terms of the vertical locations, the three Vertical Sign Zones, measured from the adjacent grade at the base of the building, at the nearest point below the sign along the building baseline:

- Vertical Sign Zone 1: between 0 feet and 16 feet 6 inches
- Vertical Sign Zone 2: above 16 feet 6 inches and up to 116 feet
- Vertical Sign Zone 3: above 116 feet

The Applicant proposes that certain sign types be restricted to specific Individual Sign Areas and/or Vertical Sign Zones. For example, Tall Building Signs are proposed only in Vertical Sign Zone 3. Digital signs (Electronic Message Display Signs) are proposed only in Vertical Sign Zone 2. The only digital signs proposed in the State Route-110 (Harbor Freeway) Individual Sign Area are static digital signs; no Full Motion Electronic Message Display Signs would be permitted in the State Route-110 (Harbor Freeway) Individual Sign Area.

Sign Animation and Illumination

Signs would be illuminated by either internal or external means. Methods of illumination may include, but are not limited to: electric lamps, such as neon tubes; fiber optics; incandescent lamps; LED; LCD; cathode ray tubes exposed directly to view; shielded spot lights; and wall wash fixtures.

The proposed Sign District would contain specific illumination regulations for all signs. Illuminance from signs would not exceed 3 foot-candles (32.3 lux) at the property line of the nearest residentially zoned property located outside the proposed Sign District. All internally illuminated signs would have a brightness of no greater than 600 candelas per square meter at night, which includes the period from 20 minutes prior to sunset until 20 minutes after sunrise, and a daytime brightness of no greater than 6,000 candelas per square meter. The illumination would smoothly transition at a consistent rate from daytime maximum luminance to the permitted maximum nighttime luminance beginning 45 minutes prior to sunset and concluding no later than 20 minutes prior to sunset. The transition from the nighttime maximum luminance to the daytime luminance would begin no earlier than 20 minutes after sunrise and concluding no earlier than 45 minutes after sunrise. Any sign with the potential to exceed sign luminance of 600 candelas per square meter would include a photocell or equivalent electronic control process to reduce sign luminance at a rate of no more than 0.25 percent per second to 600 candelas per square meter at any time when ambient sunlight falls to illuminance values less than 100 foot-candles. In addition, all illuminated signs comply with California Vehicle Code Section 21466.5 and would be shielded, reduced in intensity, or otherwise protected from view such that the brightness of a light source within 10 degrees from a driver's normal line of sight would not be more than 1,000 times the minimum measured brightness in the driver's field of view, except when minimum values would be less than 10 foot-lamberts. If minimum values are below 10 foot-

lamberts, the source brightness shall not exceed 500 foot-lamberts plus 100 times the angle, in degrees, between the driver's line of sight and the light source.

With regard to refresh rate, Electronic Message Display Signs would be limited to one refresh event every 8 seconds, with an instant transition between images. The sign image would remain static between refreshes. The Full Motion Electronic Message Display Signs and Full Motion Electronic Message Display Projecting Signs would permit images or illumination with motion at an unrestricted rate.

The Applicant proposes that the Sign District incorporate design elements for externally illuminated signs to limit the direct view of the light source surface at all exterior light fixtures to ensure that the light source would not be visible from adjacent residential properties or the public right-of-way. Such design elements could include one or more of the following standards: use of light fixtures that comply with the ratings specified in CALGreen Table 5.106.8; use of light fixtures with a focused output where the output angles greater than 20 degrees from beam centerline do not exceed 600 candelas; glare shields and louvers attached to the front face of the light fixture; and/or architectural screens to conceal the direct view of the light fixtures at the center of adjacent streets at the site boundary to the north, south, east, and west. All light sources, including illuminated signage, would comply with CALGreen (Part 11 of Title 24, California Code of Regulations).

Sign Hours of Operation

The Sign District proposes to limit hours of operation for Electronic Message Display Signs, Full Motion Electronic Message Display Signs and Full Motion Electronic Message Display Projecting Signs to the time between dawn and 2:00 A.M. Other types of signs would not have restricted hours of operation.

Conceptual Sign Plan

The Applicant has prepared a Conceptual Sign Plan (dated September 29, 2017) [5] which is comprised of the Conceptual Sign District Drawings and Conceptual Sign District Matrix provided in Appendix A of this Addendum, which depicts a conceptual implementation of the types, amount, and locations of the proposed signage. The individual signs shown in the Conceptual Sign Plan are conceptual and could change, but would conform to the square footage, sign type, location, animation, illumination and hours parameters discussed above.

Table 3, Conceptual Sign Plan, provides a breakdown of the signage type, size, and on-site/off-site on each of the four Individual Sign Areas as shown in the Conceptual Sign Plan.

[5] The technical analyses contained in this document (Visual Simulations, Lighting Technical Report, and Traffic Hazards Assessment) analyzed earlier versions of the Conceptual Sign Plans (dated June 2016). However, the revisions to the Conceptual Sign Plans do not materially affect the analyses or conclusions of the technical reports. The Conceptual Sign Plans were revised to change two on-site wall signs on Sign Level 2 along the Francisco Street Individual Sign Area to two on-site canopy signs in the same location, and the signage numbering in the Conceptual Sign District Matrix was revised to accommodate this revision. No changes were made to the size, location or illumination of any signage.

TABLE 3
PROPOSED SIGNAGE BY INDIVIDUAL SIGN AREA

Individual Sign Area	Sign Location	Sign Type	On Site or Off Site	Signage Area (Square Feet)
8th Street	Podium	Full Motion Electronic Message Display Sign	Off Site	806
	Podium	Full Motion Electronic Message Display Projecting Sign	Off Site	202
	Podium	Full Motion Electronic Message Display Projecting Sign	Off Site	202
	Podium	Window Sign	On Site	126
	Res. Tower 1	Tall Building Sign	On Site	255
	Res. Tower 3	Tall Building Sign	On Site	1,275
	Hotel	Tall Building Sign	On Site	847
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	38
	Podium	Wall Sign	On Site	40
	Podium	Wall Sign	On Site	40
	Podium	Wall Sign	On Site	40
	Podium	Wall Sign	On Site	100
Subtotal				4,031
Francisco Street	Res. Tower 1	Canopy Sign	On Site	24
	Res. Tower 1	Canopy Sign	On Site	38
	Res. Tower 1	Canopy Sign	On Site	15
	Hotel	Canopy Sign	On Site	40
	Hotel	Canopy Sign	On Site	60
	Podium	Canopy Sign	On Site	40
	Podium	Canopy Sign	On Site	40
	Podium	Full Motion Electronic Message Display Sign	Off Site	334
	Hotel	Full Motion Electronic Message Display Sign	Off Site	1,245
	Podium	Window Sign	On Site	99
	Podium	Hanging Sign	On Site	250
	Podium	Hanging Sign	On Site	75
	Courtyard	Monument Sign	On Site	54
	Podium	Multi-Tenant Window Sign	On Site	470
	Podium	Multi-Tenant Window Sign	On Site	987
	Podium	Multi-Tenant Window Sign	On Site	470
	Podium	Multi-Tenant Projecting Sign	On Site	36
	Podium	Multi-Tenant Projecting Sign	On Site	36
	Podium	Multi-Tenant Projecting Sign	On Site	36
	Podium	Multi-Tenant Projecting Sign	On Site	36
	Podium	Multi-Tenant Pillar Sign	On Site	95

Individual Sign Area	Sign Location	Sign Type	On Site or Off Site	Signage Area (Square Feet)
	Podium	Multi-Tenant Pillar Sign	On Site	95
	Podium	Multi-Tenant Wall Sign	On Site	171
	Podium	Multi-Tenant Wall Sign	On Site	481
	Podium	Multi-Tenant Wall Sign	On Site	208
	Res. Tower 2	Tall Building Sign	On Site	255
	Podium	Wall Sign	On Site	50
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	48
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	63
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	38
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	63
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	42
	Podium	Wall Sign	On Site	60
	Podium	Wall Sign	On Site	60
	Res. Tower 1	Wall Sign	On Site	6
	Res. Tower 1	Wall Sign	On Site	28
	Hotel	Wall Sign	On Site	124
	Hotel	Wall Sign	On Site	116
	Podium	Wall Sign	On Site	125
	Podium	Wall Sign	On Site	92
	Podium	Wall Sign	On Site	96
	Podium	Wall Sign	On Site	88
	Podium	Wall Sign	On Site	96
	Podium	Wall Sign	On Site	50
	Podium	Wall Sign	On Site	50
	Podium	Wall Sign	On Site	50
	Podium	Wall Sign	On Site	50
	Podium	Wall Sign	On Site	84
	Podium	Wall Sign	On Site	80
	Podium	Wall Sign	On Site	80
	Podium	Wall Sign	On Site	80
Subtotal				7,889

Individual Sign Area	Sign Location	Sign Type	On Site or Off Site	Signage Area (Square Feet)
James M. Wood Blvd.	Hotel	Canopy Sign	On Site	82
	Res. Tower 1	Electronic Message Display Wall Sign	On Site	1,558
	Hotel	Full Motion Electronic Message Display Sign	Off Site	1,550
	Res. Tower 1	Multi-Tenant Projecting Sign	On Site	296
	Res. Tower 1	Multi-Tenant Projecting Sign	On Site	296
	Res. Tower 1	Multi-Tenant Projecting Sign	On Site	248
	Res. Tower 1	Multi-Tenant Projecting Sign	On Site	248
	Res. Tower 1	Multi-Tenant Projecting Sign	On Site	248
	Res. Tower 1	Multi-Tenant Projecting Sign	On Site	248
	Res. Tower 3	Tall Building Sign	On Site	1,275
	Hotel	Tall Building Sign	On Site	847
	Res. Tower 1	Tall Building Sign	On Site	255
	Hotel	Wall Sign	On Site	200
Subtotal				7,351
State Route-110 (Harbor Freeway)	Res. Tower 1	Electronic Message Display Wall Sign	On Site	2,404
	Res. Tower 1	Electronic Message Display Wall Sign	On Site	588
	Res. Tower 1	Electronic Message Display Wall Sign	Off Site	1,176
	Res. Tower 1	Electronic Message Display Wall Sign	On Site	1,176
	Podium	Electronic Message Display Wall Sign	On Site	1,878
	Podium	Electronic Message Display Wall Sign	On Site	933
	Podium	Electronic Message Display Wall Sign	Off Site	803
	Podium	Monument Sign	On Site	40
	Podium	Multi-Tenant Wall Sign	On Site	2,352
	Res. Tower 2	Tall Building Sign	On Site	255
	Res. Tower 1	Wall Sign	On Site	15
	Res. Tower 1	Wall Sign	On Site	15
	Podium	Wall Sign	On Site	112
Subtotal				11,747
TOTAL				31,018

Figures 6 through 9 provide architectural elevations that graphically show the locations and types of signs based on the Conceptual Sign Plan, which includes the Conceptual Sign District Drawings and the conceptual Sign District Matrix.[6] **Figure 6**, *Conceptual Sign Plan – 8th Street Elevation*, shows the signage along the 8th Street Individual Sign Area. **Figure 7**, *Conceptual Sign Plan – Francisco Street Elevation*, shows the signage along the Francisco Street Individual Sign Area. **Figure 8**, *Conceptual Sign Plan – James M. Wood Boulevard Elevation*, shows the signage

6 The changes to the Conceptual Sign Plan (discussed in note 2) have no impact on the simulations as there was no change to the signs visible in the simulations.

along the James M. Wood/9th Street Off-Ramp Individual Sign Area. **Figure 9**, *Conceptual Sign Plan* – State Route-110 (Harbor Freeway) Elevation, shows the signage along the State Route-110 (Harbor Freeway) Individual Sign Area.

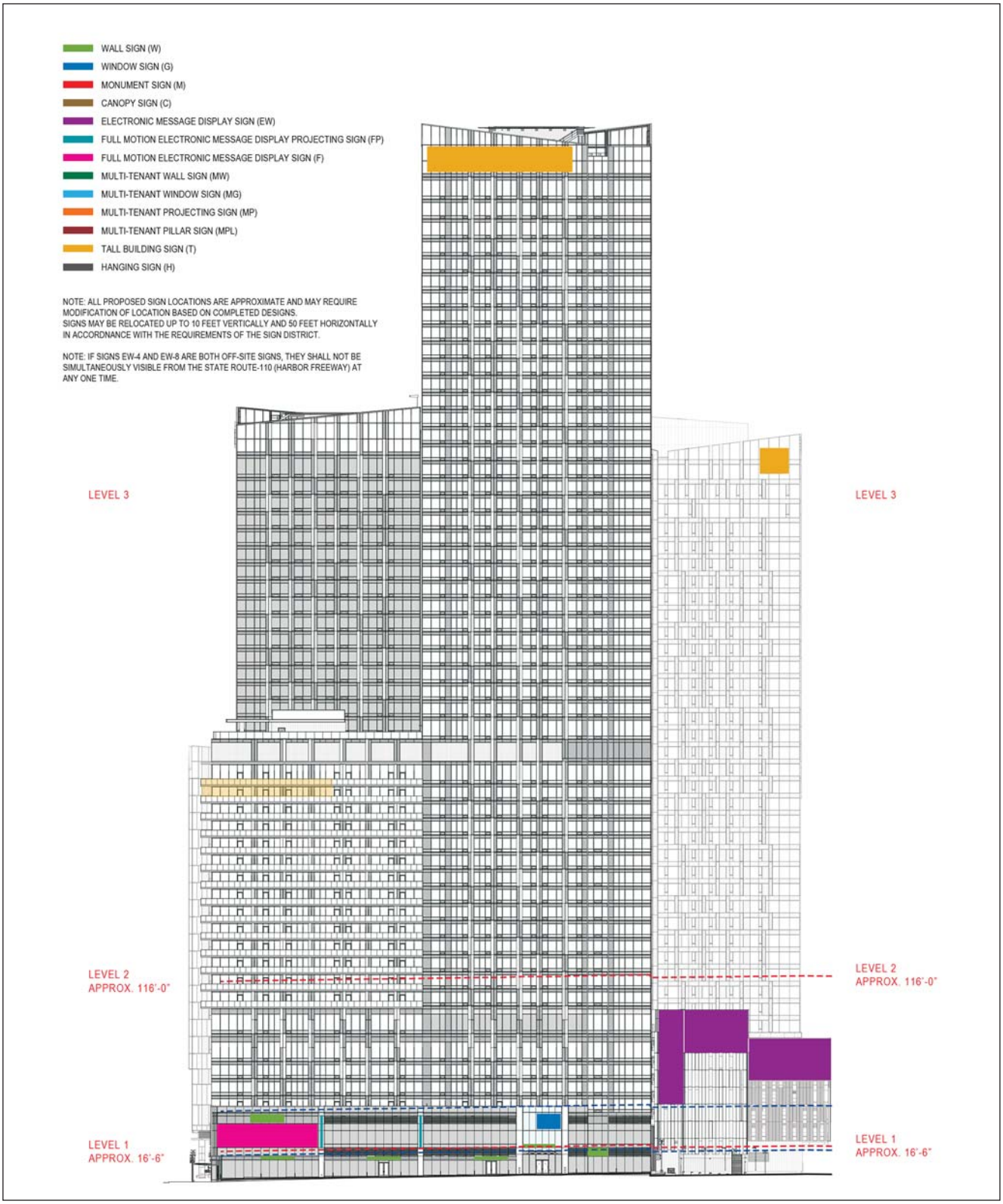
The majority of the signs would provide identification for tenants within the Development. The proposed Conceptual Sign Plan includes two Tall Building Signs on each of the four towers. The Tall Building Signs located on Residential Towers 1, 3 and the Hotel, would face north and south. The Tall Building Signs on Residential Tower 2 would face east and west.

The Conceptual Sign Plan provides for eight Electronic Message Display Signs, six of which would contain on-site messaging. The Electronic Message Display Signs are intended to add to the dramatic façades and to help identify the tenants and buildings. Two of the Electronic Message Display Signs would face the State Route-110 (Harbor Freeway), signs EW-4 and EW-8, would contain off-site advertising. These two off-site freeway facing signs would either be separated by a minimum distance of 500 feet or would not both be visible from the freeway at any one time.

The Conceptual Sign Plan shows Full Motion Electronic Message Display Signs that would contain off-site advertising, similar to existing off-site advertising at LA Live and other hotels in the neighborhood. These Full Motion Electronic Message Display Signs would be located on 8th Street, Francisco Street, and James M. Wood/9th Street Off-Ramp Individual Sign Areas. No Full Motion Electronic Message Display Signs would be permitted in the State Route-110 (Harbor Freeway) Individual Sign Area.

As stated previously, the signs shown in the Conceptual Sign Plan are a conceptual implementation of the proposed Sign District and could change, within the parameters defined by the Sign District.8th Street Individual Sign Area (North Façade)

The Conceptual Sign Plan shows a total of approximately 4,031 square feet of signage located along the 8th Street frontage. Three Tall Building Signs would be located on the upper portions of buildings facing 8th Street, including on Residential Tower 1, Residential Tower 3 and the Hotel. In addition, Wall Signs and a Window Sign would identify on-site uses. Three Full Motion Electronic Message Display Signs, two Projecting and one Wall Sign, would also be located on 8th Street. These three signs would provide off-site advertising. The two Projecting Signs would be one sided with the image on the east-facing side of the sign oriented towards people walking and driving on 8th Street, which is a one-way street.



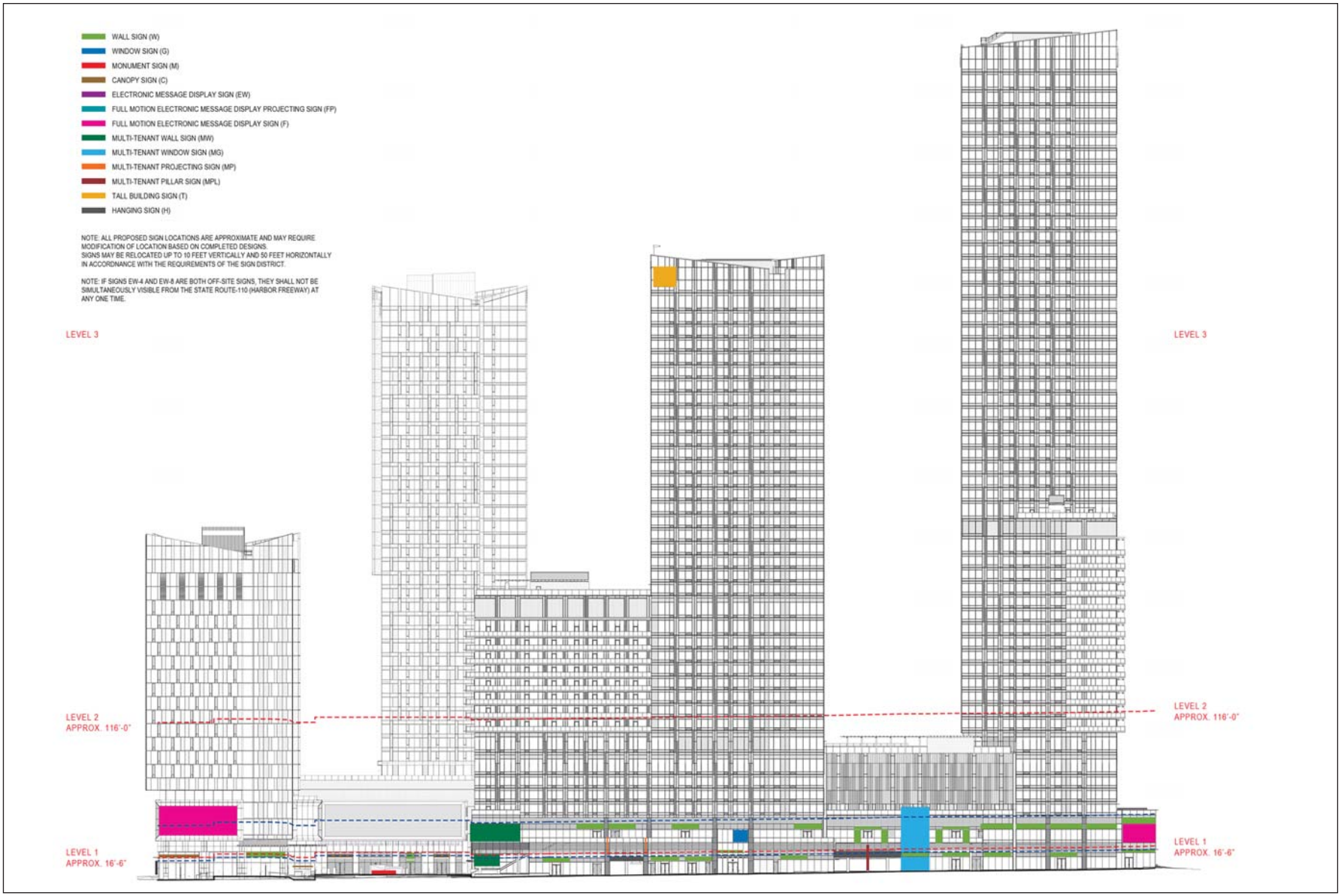
SOURCE: Davies Associates, Inc., 2017

Metropolis Mixed-Use Project

Figure 6

Conceptual Sign Plan – 8th Street Elevation

ESA PCR



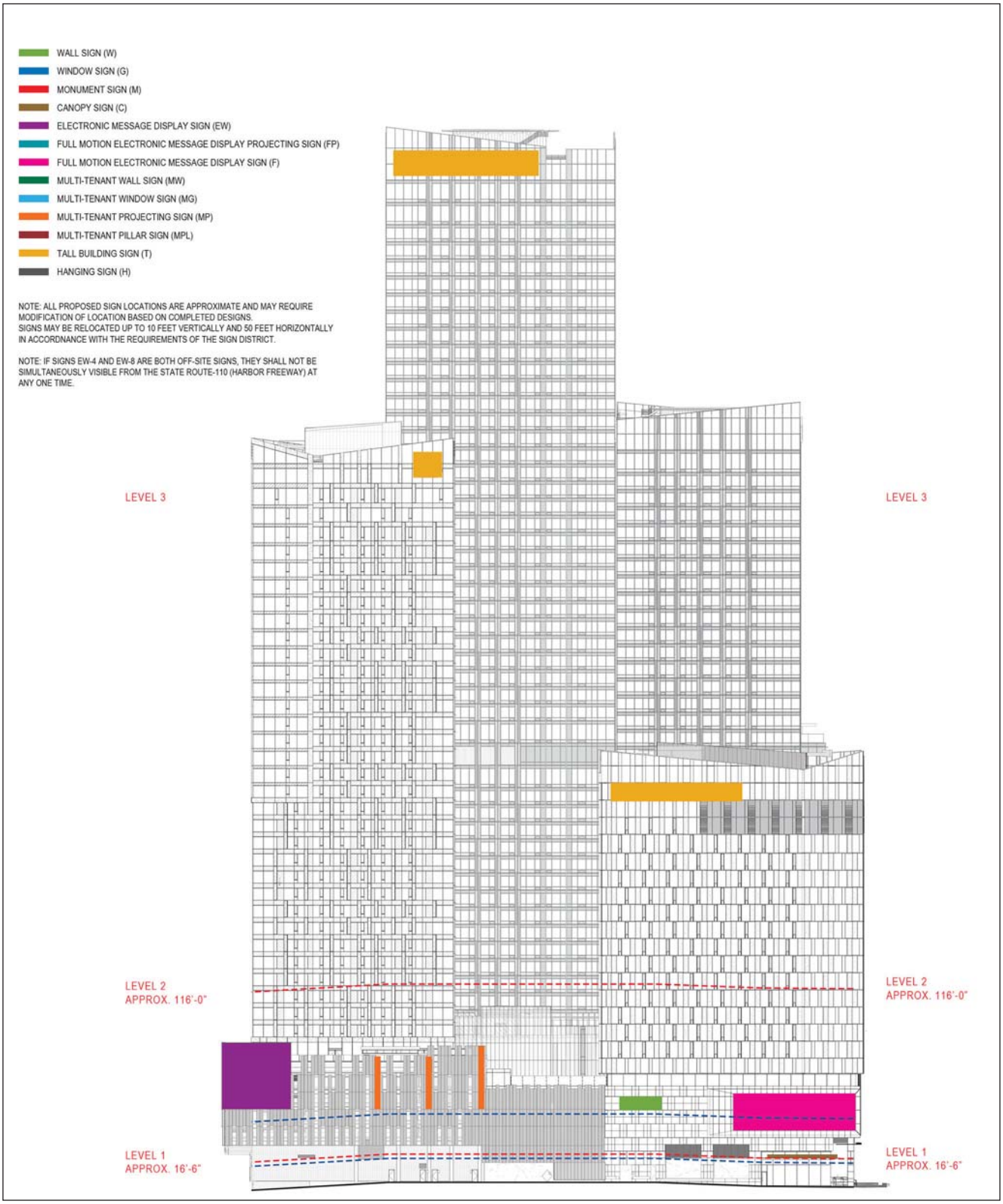
SOURCE: Davies Associates, Inc., 2017

Metropolis Mixed-Use Project

Figure 7

Conceptual Sign Plan – Francisco Street Elevation

ESA PCR



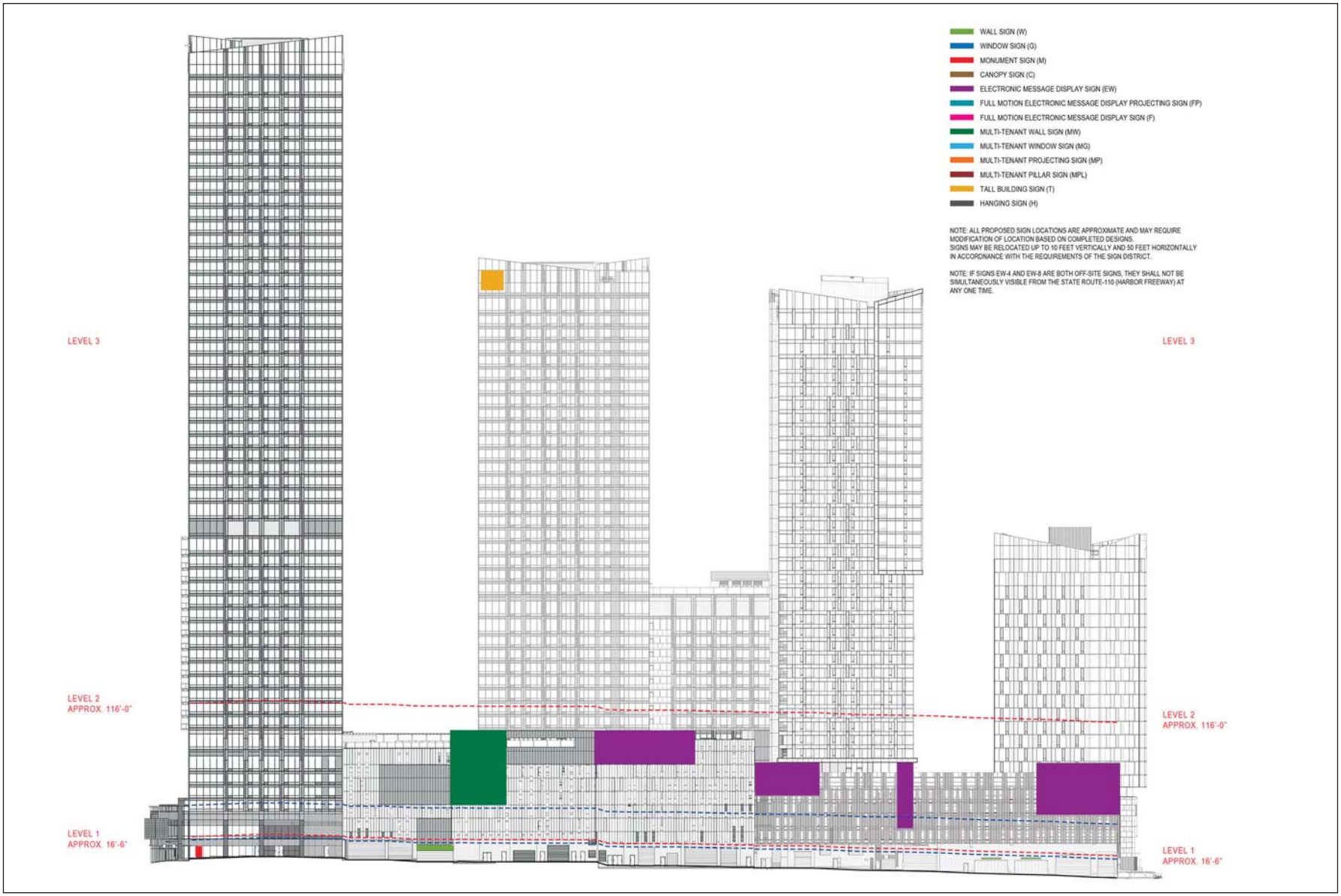
SOURCE: Davies Associates, Inc., 2017

Metropolis Mixed-Use Project

Figure 8

Conceptual Sign Plan –James M. Wood Boulevard Elevation

ESA PCR



SOURCE: Davies Associates, Inc., 2017

Metropolis Mixed-Use Project

Figure 9

Conceptual Sign Plan – State Route-110 (Harbor Freeway) Elevation

ESA PCR

Francisco Street Individual Sign Area (East Façade)

The Conceptual Sign Plan shows a total of approximately 7,889 square feet of signage located along the Francisco Street frontage. Signage on the Francisco Street side would be primarily Wall Signs or Multi-Tenant Wall signs that would advertise the tenant uses within the commercial spaces. In addition, Canopy Signs and Multi-Tenant Projecting Signs would also be located on this façade. A Tall Building Sign would be located on the upper portion of Residential Tower 2. Two Full Motion Electronic Message Display Signs with off-site advertising totaling 1,579 square feet would be located on the Phase 2 podium and hotel building. The smaller Full Motion Electronic Message Display Sign would be located on the third floor of the podium near the corner of 8th Street and the larger sign would be located on the Hotel near the corner of James M. Wood Boulevard.

James M. Wood Boulevard / 9th Street Off-Ramp Individual Sign Area (South Façade)

The Conceptual Sign Plan shows a total of approximately 7,351 square feet of signage located along the James M. Wood Boulevard frontage. The signage type would be varied. Three Tall Building Signs would be located on the upper portions of this façade on Residential Tower 1, Residential Tower 3 and the Hotel. Three Multi-Tenant Projecting Signs would be located on the western portion of this façade facing the freeway off-ramp. These three projecting signs would be double-sided, with signage visible from the east and the west. A Full Motion Electronic Message Display Sign with off-site messaging would be located on the Hotel at the corner of James M. Wood Boulevard and Francisco Street. This sign would wrap the corner and meet the sign facing Francisco Street. An Electronic Message Display Wall Sign with on-site messaging would be located at the southwest corner of the parking podium of Residential Tower 1 facing the off-ramp.

State Route-110 (Harbor Freeway) Individual Sign Area (West Façade)

The Conceptual Sign Plan shows a total of approximately 11,747 square feet of signage located on the buildings facing State Route-110 (Harbor Freeway). Four Wall Signs would be located on this façade and a Monument Sign would be located at grade. In addition, a Tall Building Sign would be located on the upper portion of Residential Tower 2. Seven Electronic Message Display Signs would be located within the State Route-110 (Harbor Freeway) Individual Sign Area (Signs EW-2 to EW-8). Five of these Electronic Message Display Signs would provide on-site advertising and two of the signs would provide off-site advertising. The Applicant proposes that any off-site signs visible from the freeway would be separated from one another by a minimum distance of 500 feet unless they are separated by buildings or other obstructions so that only one such sign is visible from the freeway at any one time.

Figures 10 through **13** provide simulations, which were prepared by KTU+A, showing the Sign Plan's conceptual signage from various vantage points. (See Appendix C for the complete series of simulations.) **Figure 10**, *Visual Simulation View – Francisco Street and 9th Street Looking North*, illustrates the proposed signage looking north along Francisco Street. **Figure 11**, *Visual Simulation View – 8th Street Looking West*, illustrates the proposed signage from a pedestrian perspective along 8th Street. **Figure 12**, *Visual Simulation View – Medici Towers Approximately 6th Floor (West of the Harbor Freeway Looking East)*, shows the proposed signage from approximately the 6th floor of an existing residential building (Medici Towers) and reflects views from private spaces. **Figure 13**, *Visual Simulation View – James M. Wood Off-Ramp*, illustrates the proposed signage along the southern façade as it would be seen from a vehicle exiting the Harbor Freeway at the James M. Wood Boulevard off-ramp.

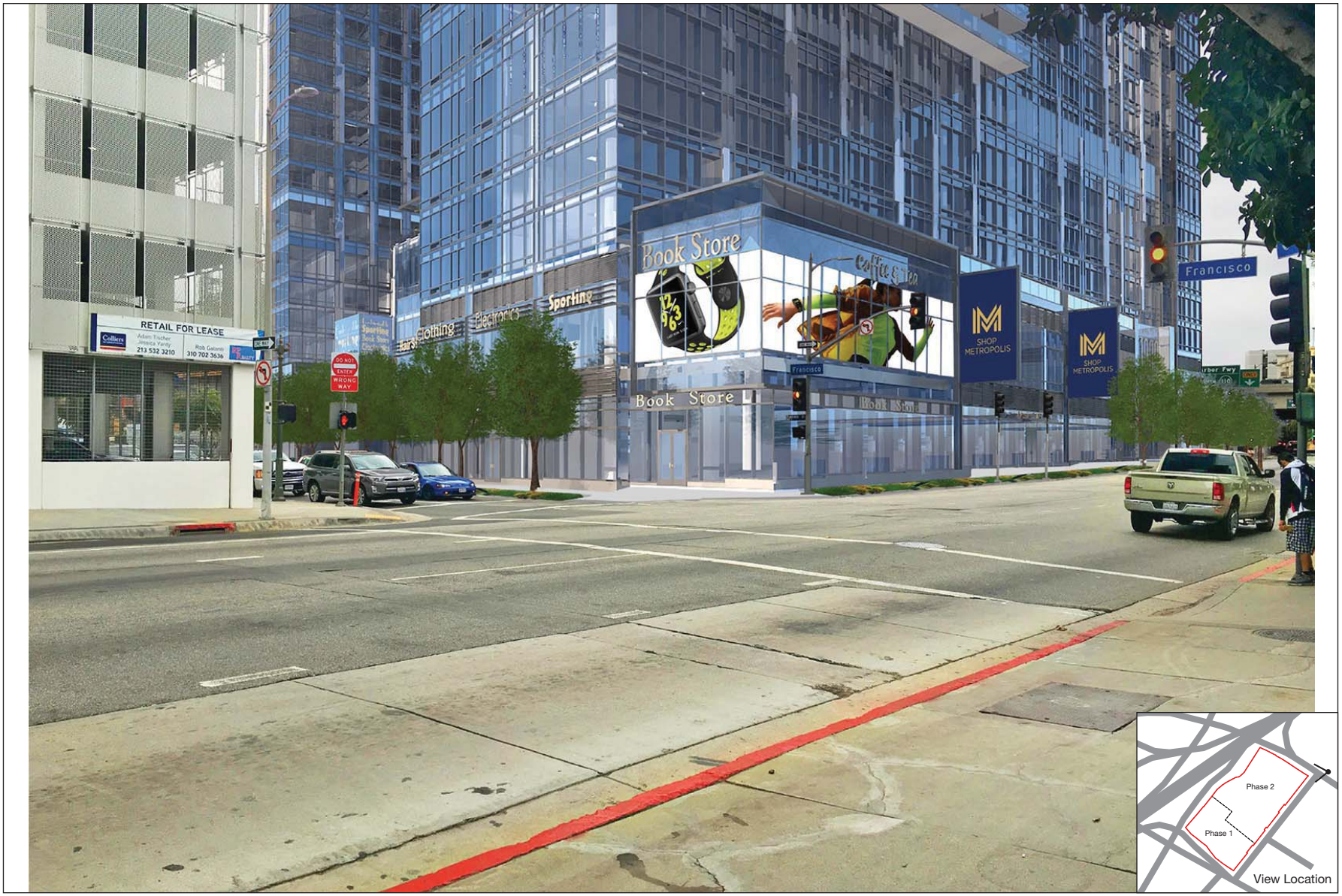
SOURCE: KTU+A, 2016

Metropolis Mixed-Use Project

Figure 10

Visual Simulation View – Francisco Street and 9th Street Looking North

ESA PCR



SOURCE: KTU+A, 2016

Metropolis Mixed-Use Project

Figure 11

Visual Simulation View – 8th Street Looking West

ESA PCR

SOURCE: KTU+A, 2016

Metropolis Mixed-Use Project

Figure 12

Visual Simulation View – Medici Towers Approximately 6th Floor
(West of the Harbor Freeway Looking East)

ESA PCR

SOURCE: KTU+A, 2016

Metropolis Mixed-Use Project

Figure 13

Visual Simulation View – James M. Wood Off-Ramp

ESA PCR

Installation of the Signage

Installation of the signage is anticipated to begin when the primary structure is complete and upon receipt of the necessary approvals.[7] The sign sub-frame and technology installation would take approximately one to four weeks per sign. Testing and commissioning of the signs would take approximately two to four weeks per phase.

LAMC requirements prohibit construction between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday and from 6:00 p.m. and 8:00 a.m. on Saturday, and at any time on Sunday. Installation of the signs would occur within the allowable construction hours. No construction worker or delivery truck parking would be allowed in the public right-of-way in the vicinity of the project site. Parking for workers installing the signs would be in the parking structures adjacent to the development, similar to the current situation with the building construction.

Entitlements

The discretionary actions requested for the Signage District may include, but are not limited to the following:

- Consideration of the Addendum to the Certified EIR
- Approval and Adoption of Metropolis Sign District

[7] In accordance with the scheduled opening of portions of the Metropolis Development, permits have been issued for certain signs (non-digital building identification or tenant signs) that are allowed by right under the LAMC and these signs have been installed. These signs are included as part of the proposed Sign District and are shown as part of the Sign District Conceptual Sign Plan.

III. COMPARATIVE ANALYSIS OF IMPACTS

As indicated above, Section 15162 of the CEQA Guidelines states that one of the conditions that would warrant preparation of a Subsequent EIR is if substantial changes are proposed in the project which would require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. An analysis was conducted to compare the impacts of the proposed Sign District, which would be established through the adoption of a Sign District Ordinance, with the impacts analyzed in the prior CEQA documentation for the Metropolis Mixed-Use Project (Metropolis Development). As shown below in **Table 4**, *Comparison of Approved Project Impacts and Proposed Project Impacts* (shown later in this document), the Sign District would not result in new significant impacts or substantially more severe significant project or cumulative impacts than those previously identified in the approved EIR, Addenda and Supplemental EIR.

Since no new or substantially more severe significant impacts would occur as a result of the establishment of the proposed Sign District, a Subsequent EIR would not be required to address these Project changes pursuant to Section 15162 of the CEQA Guidelines.

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IV. CHANGED CIRCUMSTANCES

Section 15162 of the CEQA Guidelines states that a Subsequent EIR would also be required if substantial changes occur with respect to the circumstances under which the project is undertaken which would require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Section 15162 also states that a Subsequent EIR should be prepared if new information of substantial importance which was not known or could not have been known at the time the previous EIR was adopted, indicates that the Project would have new or substantially more severe significant impacts, or, indicates that mitigation measures or alternatives previously considered infeasible, or that are considerably different, would substantially reduce the significant impacts of the project, and the project proponents decline to adopt the new measures.

No substantial changes to the immediate environmental setting of the project site have been identified since the preparation of the 2015 Addendum. The Metropolis Development is currently under construction and the analysis contained in this Addendum is to evaluate the potential impacts that could occur from the implementation of the proposed Sign District.

As described in Chapter I under the subsection entitled Background, an EIR was certified and various additional environmental documents were subsequently prepared for the Metropolis Development with the most recent being completed in 2014. A Mitigation Monitoring and Reporting Program (MMRP) was adopted for the Metropolis Development to reduce potentially significant impacts in the following areas: Air Quality, Cultural Resources, Geology/Soils, Hazards/Hazardous Materials, Noise, Population/Housing, Public Services (Fire Protection and Police Protection), Transportation/Traffic, and Other Issues (Wind, Energy, and Telephone Services). A copy of the MMRP is provided in Appendix B of this Addendum. The Certified EIR for the Development concluded that with the implementation of mitigation measures included in the MMRP, impacts would be reduced for all issues to a less than significant level with the exception of construction noise, which while reduced would remain significant and unavoidable. As such, Findings and a Statement of Overriding Considerations were adopted for the Development. Since the analysis contained in this Addendum concludes that no potential significant impacts would result from the proposed Sign District, there are no new mitigation measures recommended and no modifications to the mitigation measures contained in the MMRP.

Existing conditions for issue areas such as geology/soils, hazards/hazardous materials, hydrology/water quality, cultural resources, land use and other issues have not materially changed nor would these issue areas be affected by the proposed Sign District. Beyond the environmental

setting of the site, there has been a continuing trend, consistent with City policy direction, toward higher density development and increased housing (i.e., Ordinance No. 179,076 – *Greater Downtown Housing Incentive Area*) in site vicinity. Related projects proposed in the site vicinity include: the Luxe Hotel, which is located southeast of the Metropolis Development on the southeast corner of S. Figueroa and Olympic Boulevard; the Cambria Hotel, which is located south of the site across James M. Wood Boulevard at the southeast corner of James M. Wood Boulevard and Georgia Street; a mixed-use development at 945 W. 8th Street on a vacant lot across the street from the Metropolis Development; the Olympia Project, a mixed-use project at the northwest corner of Olympic Boulevard and Georgia Street; and Olympic Tower, L.A. at the northwest corner of Olympic Boulevard and Figueroa Street. While there is ongoing infill development occurring within the area, the built out nature of the surrounding proximate and adjacent uses remain generally as described in the 2015 Addendum.

Overall, the changes in circumstances that have occurred since preparation of the 2015 Phase 2 Addendum would not result in new significant impacts or substantial increases in the severity of previously identified significant impacts. No other additional information of substantial importance, which would require major revisions to earlier analyses that would warrant preparation of a Subsequent EIR pursuant to Section 15162 of the CEQA Guidelines, has been found. Lastly, all mitigation measures required for the Project would still be applicable and are being implemented in accordance with City approvals.

Conclusion Regarding Addendum as an Appropriate Mechanism

Section 15162 of the CEQA Guidelines provides direction on when a Subsequent EIR is necessary. Section 15162(a)(1) and (2) state that a Subsequent EIR would be required if: 1) substantial changes are proposed in the project or 2) substantial changes occur with respect to the circumstances under which the project is undertaken either of which would require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. In addition, Section 15162(a)(3) states that a Subsequent EIR should be prepared if mitigation measures or alternatives previously considered infeasible, or that are considerably different, would substantially reduce the significant impacts of the project, and the project proponents declined to adopt the new measures.

As described in detail herein, an analysis has been conducted that confirms that no major revisions to the prior CEQA documents completed for the Metropolis Mixed-Use Project are required as the proposed Metropolis Sign District would not result in any new significant environmental impacts or substantially more severe significant impacts when compared to the impacts previously disclosed for the Metropolis Mixed-Use Project.

This Addendum also evaluates whether changes in circumstances surrounding the Project or new information of substantial importance would cause new significant environmental effects or a substantial increase in the severity of such effects beyond what was identified in the earlier CEQA documents. The evaluation of changes in circumstances and new information is focused on whether

changes of substantial importance have occurred to environmental conditions on the site and in the area, or to applicable plans, policies or regulations, which result in new significant environmental impacts. Aside from the construction of the Metropolis Development, no substantial changes to the immediate environmental setting of the site have been identified since the preparation of the 2015 Addendum. The built out nature of the surrounding proximate and adjacent uses remain generally as described in the 2015 Addendum. No other additional information of substantial importance, which would require major revisions to earlier analyses that would warrant preparation of a Subsequent EIR pursuant to Section 15162 of the CEQA Guidelines, has been found. Lastly, all mitigation measures required for the Metropolis Development would still be applicable and are being implemented in accordance with City approvals.

As shown in this Addendum, the proposed Sign District would not result in new significant impacts or substantially more severe significant project or cumulative impacts for any of the environmental topics addressed by the Certified EIR, approved Addenda, and the Supplement to the Certified EIR. Accordingly, a Subsequent EIR would not be required to address these Project changes pursuant to Section 15162 of the CEQA Guidelines and pursuant to Sections 15162 and 15164 of the CEQA Guidelines. Therefore, this Addendum is the appropriate document under CEQA for addressing the impacts of the proposed Sign District.

The support for this finding is provided in Table 4, Comparison of Approved Project Impacts and Proposed Project Impacts. There are a number of issues that would not be affected by the establishment of the proposed Sign District for the Metropolis Development. For example, the Sign District would not alter the development of the site or result in construction of a new building. As such, issue areas such as geology and soils and hydrology and water quality would not be affected. As no development would occur, there would be no increase in population on the site. Therefore, the proposed Sign District would not affect the provision of public services, such as fire, police, schools, and libraries or utilities and service systems, such as water, wastewater, stormwater or solid waste. However, Table 4 provides an analysis of the issues in Appendix G of the CEQA Guidelines to ensure that a thorough analysis consistent with the previous Addenda is provided.

The Approved Project Impacts column in Table 4 provides the analysis contained in Addendum 6 that was prepared for the Development. The Proposed Project Impacts column contains the analysis of the potential impacts that could occur from the implementation of the proposed Sign District. A description of the proposed Sign District, which includes the proposed sign types, locations, maximum square footage, hours of operation, and type of animation or controlled refresh for the proposed signage, as well as the Conceptual Sign Plan,[8] is contained in Chapter II, Project Description, of this Addendum and is the basis of the analysis of this Addendum. The establishment of the Sign District would result in sign regulations, adopted by ordinance, which would be applicable to the Metropolis Development. A proposed draft Metropolis Sign District Ordinance ("Ordinance") has been submitted as part of the application and is part of the administrative file.

8 As discussed in Chapter II, Project Description, the Conceptual Sign Plan (dated September 29, 2017) is comprised of the Conceptual Sign District Drawings and Conceptual Sign District Matrix provided in Appendix A of this Addendum.

TABLE 4
COMPARISON OF APPROVED PROJECT IMPACTS AND PROPOSED PROJECT IMPACTS

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
A. Aesthetics		
a) Scenic vista b) Scenic resources c) Existing visual character	On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under CEQA for several categories of development projects including the development of infill projects in transit priority areas. The bill adds to the CEQA Statute, Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, and in particular Section 21099. Pursuant to Section 21099(d)(1) "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." This provision would apply to the Project as it is a mixed-use residential and employment center project that is infill in nature and located within a transit priority area. More specifically, the Project is located on a "… lot 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…. and it is located within one-half mile of a major transit stop." These provisions apply to the Project because it is mixed-use residential, the site is currently used as an asphalt parking lot, and it is within a transit priority area, being located approximately 0.25 miles from the 7th Street Metro Center Station, a major transit stop (rail transit station). Therefore, pursuant to Section 21099(d)(1) of SB 743 the Modified Project's aesthetic impacts on the environment would not be considered significant. Nonetheless, SB 743 states that local agencies may continue to set their own thresholds, including those for aesthetic impacts. As such, while the CRA and City have not amended their CEQA Guidelines to address the State-level changes as a result of SB 743, which apply here, this Addendum still includes an evaluation of aesthetics, views, light/glare, and shade/shadow. The Approved Project would result in four high-rise buildings on the site instead of five towers previously proposed. The Podium would be up to eight levels. However, the two floors	The establishment of the Sign District would result in sign regulations, adopted by ordinance, which would establish the regulations for signs for the Metropolis Development. As indicated in the Project Description, a Conceptual Sign Plan was prepared that depicts a conceptual implementation of signage proposed within the Sign District. The conceptual plans were used to prepare visual simulations that show the signs from key view locations.[9] Based on a viewshed analysis prepared by KTU+A, eight visual simulations were prepared. See Appendix C, Visual Simulations, for the complete simulations. Figures 8 through 11 in the Project Description provide four of the simulations. Visual simulations were prepared traveling on State Route-110 (Harbor Freeway) travelling northbound (View 1) and southbound (View 6), as well as travelling on the James M. Wood Boulevard off-ramp (Views 2 and 3). In addition, visual simulations were prepared from the corner of Georgia Street and James M. Wood Boulevard (View 4) and from west of the freeway (View 5) from approximately the 6th floor of the Medici Apartments. Finally, visual simulations were prepared from pedestrian level looking north along Francisco Street (View 8), and looking west along 8th Street (View 7). As can be seen from the visual simulations, the signs would be visible along the street frontages within the Convention Center Sphere of Influence, by having, in part, animated and illuminated signs and graphics that are compatible with the commercial, entertainment, and retail uses in the downtown area. The signs would accentuate the architectural characteristics of the Metropolis Development through the integration of the signs into the architecture of the building. The proposed signs have been designed to provide visual interest at the street level and to contribute to a pedestrian friendly and vibrant streetscape. The Project would result in a less than significant impact with regard to visual quality and character. The Project would not disrupt any views or block any viewsheds. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

9 As indicated in the Approved Project column, SB 743 indicates that aesthetic impacts of a mixed-use residential project on an infill site within a transit priority area shall not be considered significant impacts on the environment. However, this Addendum contains an evaluation of aesthetics, views, light/glare, and shade/shadow.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	of double height retail space within the Podium as well as the lofts at the lower levels of the towers would be located along Francisco Street and Eighth Street would provide visual interest at the street level. In addition, the parking within the Podium would be screened from the freeway by architectural treatment, such as folded sculptural aluminum screens and glass, on the western façade, The Approved Project would incorporate a modern, grand, and dramatic architectural style that would be representative of other Class A development projects in the Downtown area. As viewed from the Harbor Freeway, the Approved Project would be a cohesive addition to the Downtown skyline. With the reduction in the number of buildings and the changes in the building locations, the Approved Project would result in less than significant visual impacts. The Approved Project would include landscaped sidewalks and plazas to create a pedestrian friendly and vibrant streetscape environment. Landscaping would be provided in outdoor areas with a mix of trees, groundcover, shrubs, vines and large planters. Street trees would be provided along the perimeter, including a double row of street trees along Francisco Street. An active corner retailing space along Eighth Street would wrap the corner with outdoor seating. The changes in existing visual character with development of the site would be less than significant and beneficial compared to the site's existing asphalt parking lot with very limited trees and landscaping.	
d) Light and glare (shadows)	As is typical throughout the northern hemisphere, the Modified Project would cast its longest shadow coverage during the winter. The morning shadows cast by the Approved Project would extend north across Witmer Street. The afternoon shadow would extend along the freeway to about the Sixth Street ramp. The Approved Project would cast shadows on shadow-sensitive residential and associated recreational facilities located to the west and northwest of the project site. The Approved Project would not produce shadows over the pool area of the Medici Apartments for more than 2 hours. Further, since the Medici pool area is already shaded by its own surrounding buildings and by other local high-rise structure such as the TCW Tower, shadows cast by the Approved Project would be less than significant. The Approved Project would not result in a significant impact since the shading on sensitive receptors would not exceed the City's threshold of three hours between the hours of 9:00 A.M. and 3:00 P.M. Pacific Standard Time (PST) between early November and mid-March, or more than four hours	No shade or shadow would occur as a result of the signs. With regard to lighting, the proposed signs would result in an increase in lighting in the site vicinity. A detailed Lighting Technical Report (Lighting Report) was prepared by Francis Krahe & Associates, Inc. to evaluate the potential light and glare effects of the proposed signage within the Sign District. The Lighting Report is provided in Appendix D of this Addendum. Proposed signs within the Sign District would be illuminated by either internal or external means. Methods of illumination may include, but are not limited to: electric lamps, such as neon tubes; fiber optics; incandescent lamps; LED; LCD; cathode ray tubes exposed directly to view; shielded spot lights; and wall wash fixtures. As proposed, illuminance from the illuminated signs would not exceed 3 foot-candles (32.3 lux) at the property line of the nearest residentially zoned property located outside the proposed Sign District. In addition, all internally illuminated signs would have a nighttime brightness of no greater than 600 candelas per square meter, and a daytime brightness of no greater than 6,000 candelas per square meter. The illumination would smoothly transition at a consistent rate between daytime and nighttime standards. Signs would transition from daytime maximum luminance to the permitted maximum nighttime luminance beginning 45 minutes prior to sunset and concluding no later than 20 minutes prior to sunset. The transition from

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	between the hours of 9:00 A.M. and 5:00 P.M. Pacific Daylight Time (PDT) between early mid-March and early November. With regard to lighting and glare, Downtown is a built out environment with relatively high levels of nighttime illumination. The Approved Project would result in additional architectural and street-level illumination sources. The City's requirements related to light and glare would apply, including Los Angeles Municipal Code (LAMC) Section 93.0117, which restricts spill light from new developments and signage at the property lines of sensitive receptors. With compliance to the applicable regulations, the proposed lighting would not be expected to substantially increase ambient illumination levels, glare, or light spillage at the project site or in the immediate vicinity where light-sensitive uses are limited. The Approved Project's illumination would be characteristic of the Downtown's expanding urban core and consistent with planned and present structures proximate to the project site. Additionally, highly reflective glass materials would be prohibited on the building towers and podium. Light and glare impacts would be less than significant.	the nighttime maximum luminance to the daytime luminance would begin no earlier than 20 minutes after sunrise and concluding no earlier than 45 minutes after sunrise. In addition, any sign with the potential to exceed sign luminance of 600 candelas would include a photocell or equivalent electronic control process to reduce sign luminance at a rate of no more than 0.25 percent per second to 600 candelas at any time when ambient sunlight falls to illuminance values less than 100 foot-candles. In addition, illuminated signs would be shielded, reduced in intensity, or otherwise protected from view such that the brightness of a light source within 10 degrees from a driver's normal line of sight would not be more than 1,000 times the minimum measured brightness in the driver's field of view, except when minimum values would be less than 10 foot-lamberts. If minimum values are below 10 foot-lamberts, the source brightness shall not exceed 500 foot-lamberts plus 100 times the angle, in degrees, between the driver's line of sight and the light source. With regard to refresh rate, Electronic Message Display Signs would be limited to one refresh event every 8 seconds, with an instant transition between images. The sign image would remain static between refreshes. The Full Motion Electronic Message Display Signs would permit images or illumination with motion at an unrestricted rate. As proposed, a Full Motion Electronic Message Display Signs would not be located in the State Route-110 (Harbor Freeway) Individual Sign Area. Based on Appendix G of the CEQA Guidelines, factors from the City of Los Angeles CEQA Thresholds Guide, the Los Angeles Municipal Code requirements, and Illuminating Engineering Society of North America (IESNA) definition of glare for residential uses, the Project would have a significant light or glare impact on a sensitive receptor if: • The Project would generate light emissions associated with an illuminated sign that produces a light intensity exceeding 3.0 foot-candles at the property line of the nearest residentially zoned property • The Project would create new high contrast conditions (contrast ratio over 30:1) visible from a field of view from a residential use In addition, based on the California Vehicle Code requirements identified above, the Project would have a significant impact with regard to artificial light or glare effects on drivers of motor vehicles if: • The Project would generate light intensity levels greater than 1,000 times the minimum measured brightness in the driver's field of view, except when the minimum values are less than 10 footlamberts (fL). • At minimum values less than 10 footlamberts (fL) the source brightness would exceed 500 fL plus 100 times the angle, in degrees, between the driver's field of view and the light source. The signs proposed as part of the Sign District would not exceed 3 foot-candles (32.3 lux) at the property line of the nearest residentially zoned property located outside the proposed Sign District. Illuminated signs would be shielded, reduced in intensity, or otherwise protected from view such that

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
		the brightness of a light source within 10 degrees from a driver's normal line of sight would not be more than 1,000 times the minimum measured brightness in the driver's field of view, except when minimum values would be less than 10 foot-lamberts. If minimum values are below 10 foot-lamberts, the source brightness shall not exceed 500 foot-lamberts plus 100 times the angle, in degrees, between the driver's line of sight and the light source. Receptor site locations were used to evaluate the maximum potential impacts that could result from light or glare from the signs in the Conceptual Sign Plan onto residential properties and roadways surrounding the Project site to the north, east, south, and west. Sixteen locations were identified for evaluation, seven residential and nine freeway locations, as shown on **Figure 14** at the end of this section, Lighting Sensitive Receptor Site Locations. The technical analysis incorporates the performance criteria proposed as part of the Sign District. In order to present a conservative, worst case analysis with respect to light trespass and glare at night, the analysis assumes that all signs would continuously emit 600 candelas/m2 with all white light, the maximum nighttime value allowed within the Sign District. <u>Light Trespass</u> As proposed, illuminated signs within the Sign District have been designed to be below the significance threshold of 3.0 foot-candles at the property line of the nearest residentially zoned property outside of the Sign District. In addition, based on the Lighting Report's analysis of the signs in the Conceptual Sign Plan, the light trespass impacts from these proposed illuminated signs would be below the significance threshold of 3.0 foot-candles at the residential receptor sites and thus impacts would be less than significant. (See Table 8 – Illuminance (fc) – Calculation Project illuminated signs at night.) In addition, there will be no significant increase in illuminance at any of the residential receptor sites (R1-a, R2-a, R2-b, R2-c, and R4-b) as compared to existing conditions. (See Table 7, Illuminance (fc) – Comparison of Measured Existing vs Calculated Project, in the Lighting Report for the comparison of the measured existing illuminance and calculated Project illuminance.) Increase in illuminance would occur at non-residential receptor sites (R3-a, R3-b and R4-a), but given the existing urban conditions and high illuminance from existing City street lights, and the absence of residential uses, this increase is less than significant. <u>Glare</u> As proposed, the maximum sign luminance would be limited to 600 candelas/m^2 at night and 6000 candelas/m^2 during the day. In addition, the Applicant proposes an electronic control mechanism to reduce sign luminance to 600 candelas/m^2 at any time when ambient sunlight is less than 100 foot-candles. Because the Project includes these design features, the Project illuminated signs would not be a significant source of glare for potentially affected residential and roadway receptor sites.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
		Based on the Lighting Report's analysis of the Conceptual Sign Plan, the contrast ratio at residential receptors is low at the majority of the residential receptor site locations, and no high contrast conditions are created at any residential receptor site. (See Table 8 Luminance (cd/m^2) – comparison of existing measured to Project Signs). The Lighting Report concludes that these low contrast ratios indicate that project sign luminance will not be bright relative to the surrounding luminance and that the maximum night time sign luminance of 600 cd/m^2 limits the sign brightness to an acceptable contrast range relative to the existing brightness visible from the residential receptor sites. Driver visibility would not be adversely affected by the Project illuminated signs. All signs would comply with Project design features which stipulate maximum luminance for both day and night, and with California Vehicle Code Section 21466.5. In fact, the maximum daytime luminance for all signs would be 80 percent below the maximum identified by the California Vehicle Code. Furthermore, based on the Lighting Report's analysis of the Conceptual Sign Plan, at many of the roadway receptor locations analyzed, signs that may be within the driver's primary field of view would be obstructed by landscape and structures. A Traffic Hazards Assessment was prepared and is summarized in Section P, Transportation/Traffic, Question d), regarding traffic hazards, of this Addendum. Based on the Lighting Report, which is provided in Appendix D of this Addendum, lighting impacts resulting from the proposed Project illuminated signs would be less than significant.
B. Agriculture and Forestry Resources		
a) Prime Farmland	The site is located in an urban area and no agricultural or forestry resources or operations exist on the site or in the surrounding area. The site and surrounding areas are not zoned for agricultural use or under Williamson Act contracts. Therefore, the Approved Project would not have an impact on agricultural or forestry resources.	The site is located in an urban area and no agricultural or forestry resources or operations exist on the site or in the surrounding area. Therefore, the Sign District would not have an impact on agricultural or forestry resources.
b) Zoning for agricultural use or Williamson Act contract		
c) Zoning for forest land		
d,e) Conversion of Farmland or forest land to non-agricultural/forest land use		

Environmental Issues		Approved Project Impacts	Proposed Project Impacts
C. Air Quality			
a) Air quality plan		The Approved Project would generate construction NOx emissions that exceed SCAQMD thresholds. Although there would also be increases in worst-case day construction emissions for CO and PM_{10}, emissions would be well below SCAQMD thresholds and would be less than significant. Although there would be an increase in residential units, with the elimination of the office tower traffic generation for the Approved Project is expected to be less than the previously approved project. The Approved Project would comply with the building energy efficiency standards. Therefore, operational emissions from mobile and stationary sources are expected to be lower than the original Project. The Approved Project would generate VOC and NOx emissions that would exceed SCAQMD thresholds. With regard to the other criteria pollutants, emission increases associated with the Approved Project would not exceed significance thresholds and impacts would be less than significant. As discussed in Section M, Population/Housing, the increase in dwelling units and population for the entire Project would represent up to 4.1 percent of the expected growth in the Central Community Plan area based on SCAG projections. However, the Approved Project would remove up to 876 hotel rooms and 495,000 square feet of office space. The Approved Project would also result in a decrease of up to approximately 2,749 employees. With the increase in residential population and decrease in employees, the Approved Project would remain consistent with the growth projections utilized in the AQMP. The Approved Project would implement mitigation measures and would be consistent with the AQMP's land use policies. Thus, the Approved Project is considered consistent with the AQMP. Based on the traffic analysis, the Approved Project would result in reduced peak hour traffic patterns. As such, the Modified Project would not result in a 1- or 8-hour CO hot spot, and sensitive receptors would not be exposed to significant pollutant emissions during operational activities. The land uses contemplated under the Approved Project are not associated with substantial toxic air contaminant (TAC) emissions. However, minor incidental TAC emissions from sources, such as solvents, maintenance materials, and testing of diesel-powered emergency generators, would result from the Approved Project. These TAC emissions sources	Implementation of the Sign District would not result in construction or operational air quality impacts of a magnitude that would materially change the air quality analysis of the Approved Project as previously evaluated. Therefore, impacts would be less than significant. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Air quality standard violation	Construction		
	Operation		
c) Criteria pollutants			
d) Sensitive receptors			

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	were not expected to result in unacceptable exposure to on- or off-site sensitive receptors. The Approved Project would place residential uses near the 110 Freeway, which is a major source of TAC emissions resulting from vehicle trips. A health risk analysis was performed for on-site receptors to analyze exposure to TAC emissions from the 110 Freeway. Results of this analysis show that cancer risk impacts at the project site due to freeway emissions would be 6.25 in a million for adults, and 8.75 in a million for children which is below the SCAQMD significance threshold of 10 in a million.	
e) Objectionable odors	The Approved Project would not include any uses identified by the SCAQMD as being associated with odors. In addition, compliance with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), would limit the potential for objectionable odors with operation of the proposed land uses. Thus, impacts with regard to objectionable odors would be less than significant.	The Sign District would not result in objectionable odors. Thus, no odor impacts would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
D. Biological Resources		
a) Special status species	No special status or sensitive biological resources, riparian habitat, natural communities, wetlands, native migratory wildlife corridors or native nursery sites are within the project site or vicinity. Therefore, the Approved Project would not result in significant impacts to biological resources.	No special status or sensitive biological resources exist on the site as the project site was previously used as a paved surface parking lot in an urbanized setting. Therefore, the Sign District would not result in impacts on biological resources. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Riparian habitat or other sensitive natural community		
c) Federally protected wetlands		
d) Movement of any native resident or migratory fish or wildlife species		
e) Local policies or ordinances protecting biological resources		
f) An adopted Habitat Conservation Plan		
E. Cultural Resources		
a) Historical resource	There are no historic resources associated with the project site. The site is at a sufficient distance from nearby historic buildings. As such, the Approved Project would result in less than significant impacts to historical resources.	The Project would be the installation of signage on recently approved buildings that are currently under construction. Therefore, no impacts to historic resources would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
b) Archaeological resource	No known archaeological resources are located on the site or in the vicinity. If archaeological resources are accidentally discovered due to grading and excavation activities for the Approved Project, such resources would be treated in accordance with federal, state and local regulations. As such, the Approved Project would have a less than significant impact on archaeological resources.	The Sign District and the installation of signage that would occur would not result in any excavation or disturbance of native soils. Thus, the Sign District would not have an impact on archaeological resources. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
c) Paleontological resources	The Approved Project could potentially encounter paleontological resources due to grading and excavation activities. With implementation of Mitigation Measure E-1, the Approved Project would have a less than significant impact on paleontological resources. (A copy of the MMRP is provided in Appendix B of this Addendum for reference.)	No excavation would occur as a result of the Sign District or the installation of signage. Thus, the Sign District would not have any further impact on paleontological resources. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
d) Human remains	No Native American burials or sacred sites are known to be present in the project site or its vicinity. If human remains are accidentally discovered due to grading and excavation activities for the Approved Project, such resources would be treated in accordance with federal, state and local regulations. As such, the Approved Project would have a less than significant impact on human remains.	No excavation would occur as a result of the Sign District or the installation of signage. Thus, the Sign District would not have an impact on human remains. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
e) Tribal Resources	Tribal Resources were not previously evaluated as the Project predates the passage of Assembly Bill 52.	The Sign District would allow signage above ground on an approved infill development in downtown Los Angeles. Thus, the Sign District would not have an impact on tribal resources.
F. Geology/Soils		
a) Exposure to potential substantial adverse effects:	With mandatory compliance with the seismic safety and engineering provisions of the Los Angeles Municipal Code (LAMC) and the California Building Code (CBC), as well as incorporation of the Mitigation Measure F-1, impacts due to earthquake fault hazards, seismic ground failure and shaking, and liquefaction would be less than significant. Since there are no known landslides near the project site, and since the site is not in the path of any known or potential landslides, no impacts due to landslides are anticipated with the Approved Project. The Approved Project also would have soil erosion impacts that are less than significant since the Approved Project would comply with State and local regulations regarding stormwater runoff control during site excavation. The Approved Project would be required to implement a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to contain and control construction site runoff, sediment, debris, and waste	The Sign District would allow signage to be installed and operated on an approved mixed-use development that is under construction. Signage would be installed in compliance with all applicable regulations. Therefore, no significant impacts would occur relative to geology and soils. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
i) Rupture of a known earthquake fault		
ii) Strong seismic ground shaking		
iii) Seismic-related ground failure, including liquefaction		
iv) Landslides		
b) Substantial soil erosion		
c) Geologic unit or soil that is unstable		
d) Expansive soil		

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
e) Septic tanks or alternative waste water disposal systems	discharges as may be expected per the National Pollutant Discharge Elimination System (NPDES) administered by the Los Angeles Regional Water Quality Control Board. No present or proposed project wastewater disposal alternatives include septic tanks. Implementation of engineering practices recommended in the geotechnical study required by the City as well as compliance with current LAMC and CBC would reduce soil instability hazards, including on- and off-site landslides, lateral spreading, subsidence, liquefaction and collapse, and soil expansion hazards for the Approved Project to less than significant levels. (A copy of the MMRP is provided in Appendix B of this Addendum for reference.)	
G. Greenhouse Gases		
a) Generate greenhouse gas emissions, either directly or indirectly, may have a significant impact on the environment.	The Approved Project resulted in a less than significant impact with regard to direct GHG emissions. In addition to quantifying emissions, the analysis documented a number of Project features that supported consistency with the goals of California's AB 32, as well as the goals of the LA Green Plan. The Addendum also evaluated GHG emissions and documented an overall reduction in emissions in comparison to business as usual (BAU) conditions.	The Sign District would not result in greenhouse gas emissions of a magnitude that would materially change the analysis of the Approved Project. Therefore, impacts would be less than significant. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases.	The Approved Project would be consistent with the goals of California's AB 32, as well as the goals of the LA Green Plan. The Approved Project's design features include a number of voluntary sustainable "Smart Growth" features that are consistent with City of Los Angeles and State goals, including promoting high-density housing close to mass transportation and employment centers, as well as creating walkable neighborhoods. Because the Approved Project would employ mandatory and voluntary design features consistent with, at a minimum, the water conservation, energy conservation, and other requirements of the LA Green Code, the Approved Project would not conflict with applicable plans, policies, or regulation to reduce GHG emissions.	The Sign District would not result in greenhouse gas emissions of a magnitude that would materially change the analysis of the Approved Project. Therefore, the Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emission. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
H. Hazards and Hazardous Materials		
a) Routine transport, use, or disposal of hazardous materials b) Release of hazardous materials c) Hazardous materials within 0.25 mile of a school	A Phase I Environmental Site Assessment Report confirmed soil contamination on the project site to a depth of 40 feet below ground surface. With compliance to applicable regulatory requirements and implementation of Mitigation Measures G-1 through G-6, the potentially significant impacts would be reduced to a less than significant level. (A copy of the MMRP is provided in Appendix B of this Addendum for	The Sign District would not result in the routine transport, use, or disposal of hazardous materials. No release of hazardous materials would occur as a result of the signage. Therefore, no impacts regarding hazards and hazardous materials would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
d) List of hazardous materials sites	reference.)The Approved Project would not require the use, storage or disposal of large quantities of hazardous materials or waste. With proper management of any small quantities of hazardous materials, the impact would be less than significant. The project site is not located within 0.25 mile of a school. Therefore, the Approved Project would not emit hazardous emissions and handle hazardous or acutely hazardous materials within 0.25 mile of an existing or proposed school. While the site is listed on the HAZNET list, this listing is related to the demolition of the former asbestos-containing structures on the project site. Since the former on-site structures were removed prior to the preparation of the 2005 Addendum, no impacts relative to these listings would occur.	
e) Hazards related to a public airport f) Hazards related to a private airstrip	The project site is not located within the vicinity of a public airport or private airstrip. However, the Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, was established by the Federal Aviation Administration (FAA) to ensure air safety by regulating construction or alteration of buildings or structures that may affect airport operations. These regulations apply to buildings with a height of over 200 feet above ground level. Given that the Approved Project proposed buildings would have a maximum of 671 feet above the existing grade, the Approved Project is required to comply with FAR Part 77. Therefore, with compliance to FAR Part 77, the Approved Project would result in less than significant impacts relative to airport hazards.	The project site is not located within the vicinity of a public airport or private airstrip. The Metropolis Development complies with FAR Part 77. The signage would not result in hazards to a public airport or to a private airstrip. Therefore, no impact would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
g) An adopted emergency response plan	The Approved Project would comply with applicable City Municipal and Fire Code design standards for emergency personnel and equipment access, security equipment, fire water flow provisions, and building evacuation plans. Thus, the Approved Project's effects on emergency response plans and emergency evacuation plans would be less than significant.	The Sign District would not affect emergency response plans. Signage would comply with applicable City Municipal and Fire Code design standards. No impacts from the Project would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
h) Wildland fires	The project site is located in a densely urbanized area and no wildlands exist on or adjacent to the project site. Thus, no impacts due to wildland fire hazards would occur.	Wildland fires are a function of site location. The project site is located in a densely urbanized area and no wildlands exist on or adjacent to the project site. Thus, no impacts due to wildland fire hazards would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
I. Hydrology/Water Quality		
a) Water quality standards or waste discharge requirements f) Degrade water quality	Upon design, implementation, and operational compliance of the Approved Project with SWPPP and Standard Urban Stormwater Mitigation Plan (SUSMP) BMPs, no violation of water quality standards or waste discharge requirements would be anticipated for the Approved Project. Implementation of SWPPP and SUSMP BMPs would reduce water quality and waste discharge impacts to levels that are less than significant.	The Sign District would not alter development on the ground as it would involve installation of signs on already approved buildings. The Project would not alter storm runoff or drainage on the site and would not impact water quality. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Groundwater supplies or groundwater recharge	No groundwater extractions are proposed as part of the Approved Project during construction or subsequent operation. Thus, impacts related to groundwater supplies or recharge would be less than significant.	The Sign District would not affect groundwater supplies or impact groundwater recharge areas since the Project creates the standards for signage on the Metropolis Development. Therefore, no impacts regarding groundwater would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
c) Alter drainage pattern such that substantial erosion or siltation occurs d) Alter drainage pattern such that flooding on- or off site occurs	With implementation of standard engineering practices required by the LAMC, compliance with SWPPP and SUSMP BMPs, drainage district design reviews, and other NPDES provisions, the Approved Project impacts to drainage patterns, runoff, erosion, siltation, and flood hazard would be less than significant.	The Sign District would not affect drainage since the Project creates the standards for signage on the Metropolis Development. Therefore, no impacts regarding drainage would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
e) Runoff water exceeding the capacity of stormdrain systems g) A 100-year flood plain h) Impede or redirect flood flows i) Expose people or structures to flooding	With implementation of standard engineering practices required by LAMC, compliance with SWPPP and SUSMP BMPs, drainage district design reviews, and other NPDES provisions, the Approved Project would result in impacts that are less than significant to the existing and planned area drainage system capacities. Furthermore, the project site is not located on a mapped Federal Flood Hazard or Flood Insurance Rate Map, or other flood hazard area. No impacts related to a flood plain, flood flows, or flooding would occur.	The Sign District and associated signage would not affect runoff or the stormdrain system. The site is not located on a mapped Federal Flood Hazard or Flood Insurance Rate Map, or other flood hazard area. As with the Approved Project, no impacts related to a flood plain, flood flows, or flooding would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
j) Inundation by seiche, tsunami, or mudflow	The project site is not at risk to inundation by seiche, tsunami or mudflow due to the existing site soils, geology, and topographical context. Therefore, no impacts relative to this issue would occur.	The site is not at risk to inundation by seiche, tsunami or mudflow. As with the Approved Project, no impacts relative to this issue would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
J. Land Use/Planning		
a) Divide an established community	The Approved Project would improve land use relationships in the surrounding area. The hotel, residential, and retail uses would connect the Convention Center uses with the commercial and office uses to the north and east of the project site. The Approved Project represents infill development with a mix of land uses that are compatible with surrounding Downtown land uses, allowable under the site's C2-4D zoning designation, and in keeping with future plans for development in the South Park area. Thus, the Approved Project would result in impacts on land use compatibility that are less than significant.	The Project would allow signage to be installed and operated on the Metropolis Development, which is located within Downtown Los Angeles. The Metropolis Development is a mixed-use, infill project. The Sign District would not divide an established community. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Consistency with applicable land use plan, policy or regulation	The Approved Project would be consistent with applicable land use plans, including but not limited to the City of Los Angeles General Plan Framework, Los Angeles General Plan and Central City Community Plan, LAMC, the Central Business District Redevelopment Plan, the Downtown Strategic Plan, Figueroa Corridor Economic Development Strategy, South Park Development Strategies and Design Guidelines, and the Southern California Association of Government's (SCAG) Regional Comprehensive Plan and Guide (RCPG). Therefore, impacts on land use consistency would be less than significant.	The Sign District would provide regulations relative to signs for the Metropolis Development that would be in addition to regulations set forth in the City's Municipal Code. This Addendum includes an analysis of the Sign District relative to applicable City plans, which is provided in detail in Appendix E of this document. The purpose of the Project is to establish regulations for signs that are specific to the Metropolis Development and reflect the unique location and design of the development. The analysis contained in Appendix E evaluates the goals, objectives, policies, and guidelines that address signage in the Central City Community Plan, Downtown Design Guide, Citywide Design Guidelines, and Walkability Checklist. The Sign District would result in a unity in the visual appearance of signs as well as signage that is integrated into the design of the buildings. As can be seen from the visual simulations prepared for the Project, the signs would contribute to a lively pedestrian atmosphere along the street frontages within the Convention Center Sphere of Influence, by having, in part, animated and illuminated signs and graphics that are compatible with the commercial, entertainment, and retail uses in the downtown area. The signs would accentuate the architectural characteristics of the Metropolis Development through the integration of the signs into the architecture of the building. The signs would provide visual interest at the street level and would contribute to a pedestrian friendly and vibrant streetscape. The Sign District would be generally consistent with applicable land use plans, policies or regulations. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
c) Consistency with a Habitat conservation plan or natural community conservation plan	No habitat conservation plans apply to the project site. Therefore, no impacts relative to this issue would occur.	No habitat conservation plans apply to the project site. Therefore, no impacts relative to this issue would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
K. Mineral Resources		
a) Known mineral resource b) Locally important mineral resource recovery site	No mineral resources of substantial size or significance exist on the project site or in the project vicinity. Therefore, the Approved Project would not result in impacts to mineral resources.	No mineral resources of substantial size or significance exist on the project site or in the project vicinity. Therefore, the Sign District would not result in impacts to mineral resources. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
L. Noise		
a) Exposure to noise levels in excess of standards	See below for discussion of the potential for construction and operational noise to exceed established standards.	The Sign District and associated signage would not generate discernable noise and therefore would not result in noise levels in excess of standards. No impacts would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
c) Permanent increase in ambient noise levels	During operation, the Approved Project would result in potential noise sources from both on-site sources (e.g., parking activities, mechanical equipment, plaza/garden, pools, roof deck amenities, and loading dock) and off-site sources (i.e., vehicular traffic). Design features associated with the Approved Project would ensure that on-site stationary source noise levels meet LAMC noise requirements during both daytime and nighttime operation. Additionally, any noise level increase would remain below the City's 5 decibel (dBA) and 3 dBA Community Noise Equivalent Level (CNEL) significance threshold for normally and clearly unacceptable noise environments. Incremental increases in traffic noise are less than the City's 3 dBA CNEL significance threshold for normally and clearly unacceptable noise environments. However, noise levels for proposed residential uses may exceed the City-recommended noise standard (i.e., 65 dBA CNEL) for the siting of multi-family residential dwelling units due to high ambient noise levels. With incorporation of mitigation measures, noise impacts during operation would be reduced to less than significant levels.	Signage associated with the Sign District would not generate appreciable noise that would exceed standards and would not result in operational noise that would materially change the analysis of noise completed for the Approved Project. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
d) Temporary or periodic increase in ambient noise levels	Even with incorporation of the mitigation measures, short-term significant and unavoidable noise impacts would occur during construction of the Approved Project for on-site sensitive receptors in outdoor common areas, as well as nearby off-site sensitive receptors (i.e., the multi-family residential use at the northwest corner of James Wood Boulevard and Georgia Street and the Salvation Army Church at the southeast corner of James Wood Boulevard and Francisco Street). Construction noise impacts for off-site	Installation of signage would not generate appreciable noise that would exceed standards and would not result in temporary noise that would materially change the analysis of noise completed for the Approved Project. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	sensitive receptors would only occur during construction of Phase 1. During construction of Phase 2 no significant impacts are anticipated at the off-site sensitive receptors since the construction activities would occur farther away from the affected off-site sensitive receptors and the building that would be constructed during Phase 1 would act as a noise barrier, minimizing construction noise levels at the off-site sensitive receptors.	
b) Groundborne vibration	During construction of the Approved Project, ground vibration would be generated during the clearing, excavation, and grading processes when heavy materials are moved. However, vibration impacts would be below the significance threshold since vibration from construction activities would be below the peak particle velocity threshold of 0.2 inch per second at off-site and on-site sensitive land uses. As such, impacts would be less than significant.	Installation of signage would not generate vibration that would exceed standards or materially change the analysis of vibration completed for the Approved Project. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
e) Public airport noise impacts f) Private airstrip noise impacts	The project site is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private airstrip. Therefore, the Approved Project would not result in impacts relative to airport noise.	The site is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private airstrip. No impact relative to noise impacts would occur from the Sign District or signs. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
M. Population/Housing		
a) Induce population growth	The Approved Project would result in a total of up to 1,560 residential units, 350 hotel rooms, and 74,903 square feet of retail and restaurant floor area. Using the factor of 1.77 persons per dwelling unit, the Approved Project would result in approximately 2,762 people. With regard to employees, the Approved Project would result in 515 employees. As an infill project, the growth associated with the Approved Project would not require infrastructure that has otherwise not been anticipated which could lead to indirect population growth. The Approved Project's increases in population and employment would fall with SCAG's forecasts for the Central City Community Plan area, would support policies that encourage increased housing and mixed-use development Downtown and would constitute an infill development in a location in which infrastructure is in place. In addition, the Approved Project is within the SCAG projections for growth in the region. Thus, impacts would remain less than significant.	The establishment of the Sign District would result in sign regulations, adopted by ordinance, which would allow signs for the Metropolis Development. No additional square footage or units are proposed. The Sign District would not induce population growth. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Displace existing housing c) Displace numbers of people	The Approved Project would not alter the project site location. As no residential uses exist on the site, no impacts with respect to the displacement of housing or people would	The Sign District would allow signs for the uses within the Metropolis Development. No displacement of housing or people would occur.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	occur. Three residential buildings had once existed on the site and residents were relocated pursuant to the California Relocation Assistance and Relocation Plan Acquisition Guidelines and CRA policy. Furthermore, in 2006 payments were made in satisfaction of Mitigation Measure L-1 to the Skid Row Housing Trust to help complete the construction of the 91-unit Rainbow Apartments on San Pedro Street in the Skid Row area of Downtown. Therefore, the Approved Project would not have an impact due to displaced housing. (A copy of the MMRP is provided in Appendix B of this Addendum for reference.)	Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
N. Public Services		
a) Fire protection	The project site is approximately 0.75 miles from the closest Los Angeles Fire Department (LAFD) fire station: Fire Station 11 at 1819 West Seventh Street. Thus, the Approved Project would meet the minimum fire company response distance criteria of one mile for high-density commercial land uses. Other fire stations that would serve the Project Site, based on distance to the site, include Fire Station Nos. 3, 9, 10, and 13. I n addition, a number of traffic mitigation measures to address traffic congestion and maintain adequate access in the area would be implemented as part of the Approved Project. Therefore, the Approved Project would not have a significant impact with respect to fire company emergency response and response times. The Approved Project would increase the demand for LAFD personnel, equipment, and services. Through compliance with LAFD and code requirements and implementation of Mitigation Measures M-1 through M-15, impacts related to fire protection services would be reduced to a less than significant level.	The Sign District, which would allow signs for the Metropolis Development, would not result in changes to the uses within the Approved Project. No additional population would result and therefore, no impacts to fire protection services would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Police protection	The Approved Project would increase the demand for Los Angeles Police Department (LAPD) police protection services. As provided in the 2007 Supplemental EIR, with implementation of mitigation measures, including a Security Master Plan, project impacts on police protection services would be less than significant.	The establishment of the Sign District, which would result in sign regulations, adopted by ordinance, which would allow signs for the Metropolis Development, would not result in changes to the uses within the Approved Project. No additional population would result and therefore, no impacts to police protection services would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
c) Schools	The Approved Project would generate new students served by the LAUSD. The Approved Project would be required to pay fees to mitigate school impacts prior to issuance of building permits pursuant to the provisions of Senate Bill (SB) 50, including Government Code Section 65995. Per SB 50, payment of the fees would constitute full mitigation of the	The Sign District, which would allow signs for the Metropolis Development, would not result in changes to the uses within the Approved Project. No additional population would occur and therefore, no impacts to schools would result. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	Approved Project's impacts on public schools. Therefore, impacts on public schools would be less than significant.	
d) Parks	The Approved Project would increase the demand for local parks and recreational facilities, but would include on-site open space and recreational facilities to offset demand. In accordance with Section 17.12 of the LAMC, park impact fees would be paid to ensure that the demand for local parks and recreational facilities would be met. With the extent of proposed on-site recreational amenities and payment of park impact fees, demand for park and recreational facilities would be adequately served and parks services impacts under the Approved Project would be less than significant.	The Sign District, which would allow signs for the Metropolis Development, would not result in changes to the uses within the approved project. No additional population would result and therefore, no impacts to parks would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
e) Libraries	The Approved Project would generate project residents, which would increase the demand for library services. Given the existing libraries and the size of the Central Library and its collection, and accounting for reductions in demand over time due to new technologies that allow on-line research and access to other local library resources through electronic means, the increase in residents would result in less than significant impacts. The Project would also generate revenue for the City's general fund that could be used for the provision of public services such as library facilities.	The Sign District, which would allow signs for the Metropolis Development, would not result in changes to the uses within the Approved Project. No additional population would result and therefore, no impacts to libraries would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
O. Recreation		
a) Deterioration of parks or other recreational facilities	Refer to Response No. N.d (Parks), above.	Refer to Response No. N.d (Parks), above.
b) Construction or expansion of recreational facilities		
P. Transportation/Traffic		
a) Conflict with plan, ordinance or police establishing the effectiveness for the performance of the circulation system	Under the Approved Project, primary vehicular access to the project site would be provided via Francisco Street, Eighth Street and James M. Wood Boulevard. The Approved Project would not result in significant impacts to the study intersections and freeway segments, including CMP facilities. In addition, the Approved Project would implement mitigation measures to enhance traffic circulation in the area. Construction plans (e.g., haul route, construction parking, etc.) for the Approved Project would be submitted to City agencies such as the Department of Public Works and Department of Building and Safety for review and approval. Additionally, construction activities would occur under the	The Sign District would result in the establishment of sign regulations, adopted by ordinance, that would allow for signs on the site and would not alter the development on the site. A small number of trips would occur for the installation of the signs. However, these trips would be temporary and no permanent increase in traffic would occur as a result of the Project. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Conflict with congestion management program (CMP) facilities		

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	oversight of the City. As such, construction-related traffic impacts would be less than significant.	
c) Air traffic patterns	The five towers of the Approved Project would comply with FAA regulations regarding rooftop lighting and the LAMC regarding building heights. As such, it would have no impact on existing air traffic patterns.	The Sign District would allow for signs and would not alter the development on the site. As such, the Sign District would have no impact on existing air traffic patterns. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
d) Hazards due to a design feature or incompatible uses e) Emergency access	Street improvements proposed for the Approved Project would be implemented in accordance with the requirements of the City of Los Angeles Public Works Department and LAFD regarding design and access (e.g., turning radii, internal road widths, and clearance to sky heights). Furthermore, the Approved Project would be subject to City Building and Safety Code requirements. All roadway improvements would be subject to City Bureau of Engineering B-Permit review. As such, no design hazards such as sharp curves, dangerous intersections, or incompatible uses are anticipated with the Approved Project. Impacts related to design hazards would not occur. The Approved Project would maintain adequate emergency access through the use of emergency vehicle sirens, alternate response routes during peak periods or congested conditions, and multiple station responses when necessary. Thus, impacts to emergency access would be less than significant.	The Sign District would allow for signs and would not alter the development on the site. As such, the Sign District would have no impact on the roadway network or emergency access. In terms of hazards due to incompatible uses, a Traffic Hazards Assessment (Assessment) was prepared by Crain & Associates and is provided in Appendix F of this Addendum. The Assessment provides an analysis of the potential for traffic hazards that could occur from the digital signs as a result of light output and driver distraction. The Assessment provides a review of applicable regulations, literature review, and an analysis of potential impacts. The analysis focuses on State Route-110 (Harbor Freeway) since the freeway has the highest vehicle speeds and traffic volume in the vicinity of the Metropolis Development, and accordingly has the highest potential for serious injury or fatality accidents. (See Figure 14 of this Addendum at the end of this section for the freeway sensitive receptor locations.) The Assessment is based, in part, on information provided in a Lighting Technical Report, which is provided in Appendix D of this Addendum. Off-site advertising signs along highways are generally subject to state and federal laws and regulations. The California Outdoor Advertising Act regulates outdoor advertising, including off-site signage, but authorizes the City of Los Angeles to permit on-site and off-site signage adjacent to the freeway in certain geographic areas, including the site, provided such signage meets specified conditions and requirements; see Cal. Bus. & Prof. Code §5272.2 (added by Assembly Bill 1373). In addition, the California Vehicle Code addresses potential glare from highway adjacent signage that could impair the vision of drivers by limiting the brightness of signs based on their relation to the highway. A literature review indicated that the following two criteria are commonly used to assess whether significant impacts from the proposed signage would occur: • If glare from signage causes drivers not to be able to comfortably discern the official highway traffic signs and other control devices; and • If distraction by signage causes drivers to remove their attention for two or more seconds from the “task at hand” of driving their vehicle. <u>Glare Analysis</u> The Lighting Report evaluates potential glare from the signs to determine if the signs would prevent drivers from being able to comfortably discern the

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
		official traffic control devices. More specifically, the Lighting Report evaluates several critical receptor site locations to consider the potential for glare from the proposed signs to affect drivers on State Route-110 (Harbor Freeway). The most potentially impacted driver decisions for southbound drivers were associated with lane selection on the approach to the 8th/9th Street ramps and the Interstate-10 (Santa Monica Freeway) Interchange. For northbound drivers, the most potentially impacted driver decision points were for the James M. Wood Boulevard/9th Street off-ramp. Given the upstream proximity of the northbound State Route-110 (Harbor Freeway) James M. Wood/9th Street off-ramp to areas of proposed Sign District signage, receptor site locations were selected that represent decision points regarding vehicle speed as well as lane selection. The Lighting Report concludes that the proposed signage would not result in significant glare at the critical driver decision points. Therefore, the Sign District would not present a glare safety hazard for traffic. The Lighting Report evaluated the signage and concludes that the proposed signs would comply with the requirements set forth in California Vehicle Code Section 21466.5, which addresses potential glare from lighted signs near freeways. The signs proposed as part of the Sign District have been designed to comply with the Outdoor Advertising Act, including the provisions of AB 1373. All freeway facing signs would be required to comply with the California Vehicle Code requirements. All signs would comply with the lighting output and other limitations of California Vehicle Code Section 21466.5. These Vehicle Code requirements were established to prevent signs from creating glare hazard. Therefore, it can be concluded that the signs would not present a glare hazard to State Route-110 (Harbor Freeway) drivers. <u>Distraction Analysis</u> Based on figures in the Lighting Report, which is provided in Appendix D of this Addendum, one or more signs would be visible from near the start of the James M. Wood Boulevard/9th Street northbound off-ramp from State Route-110 (Harbor Freeway). Existing buildings and landscaping would block the view of the signs from the northbound freeway lanes prior to 11th Street. One or more signs would become visible before the start of the critical decision areas for the James M. Wood Boulevard/9th Street off-ramp. Likewise, signage would be visible to southbound drivers at the critical area for selecting lanes at the Interstate-10 (Santa Monica Freeway) interchange. The distances for which signage would be visible and in the scope of vision are approximately 250 feet northbound (prior to the James M. Wood/9th Street off-ramp) and 800 feet southbound (prior to the site no longer being in the driver's cone of vision). Those distances are greater than 161 feet and could attract driver focus for 2 seconds or longer, presenting a potential traffic hazard due to distraction of driver attention if refresh rates for the signage were not properly controlled. However, as discussed below, the Applicant proposes refresh rates that would avoid driver distraction. The Sign District is designed to avoid driver distraction that could pose hazards. The Applicant proposes a minimum refresh rate of 8 seconds for all

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
		digital signs facing the freeway. For signs with refresh rates of 8 seconds or more, driver attention is expected to return to the roadway similar to static signs, which are common along freeways. The literature has not shown static signs to be a significant contributor to accident rates. Driver eye glance duration for digital and standard billboards was found in the 2012 FHWA study to be less than 1.4 seconds. This, in turn, is less than the 2.0 seconds duration at which a hazard occurs used in the FHWA study. Therefore, the 8-second refresh rate for the digital signs proposed facing State Route-110 (Harbor Freeway) would avoid potentially significant traffic hazard impacts due to driver distraction. <u>Summary</u> The glare analysis concludes that the proposed signs would be consistent with California Vehicle Code Section 21466.5and would not introduce a significant new source of glare. In addition, the Sign District parameters requiring an 8 second or longer refresh rate for digital signs visible from the State Route-110 (Harbor Freeway) mainline would eliminate potential distractions from the roadway that may be caused by more rapidly changing signs. Therefore, no significant traffic hazard impacts associated with the Sign District have been identified. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
f) Parking capacity	As indicated above under Aesthetics, pursuant to SB 743, recently passed by the California legislature, aesthetic and parking impacts of residential, mixed use residential, and employment center projects on infill sites within transit priority areas (such as the Modified Project) "shall not be considered significant impacts on the environment." However, SB 743 also states that local agencies may continue to set their own thresholds, including those for parking impacts. Parking for the Approved Project would be provided on-site through subterranean and podium parking garages to be developed with each phase. The site vicinity is well served by bus and rail systems. Given the proximity to transit, the parking demand would be less. Parking would be provided at a ratio similar to other recently approved projects in Downtown with adequate parking. Impacts related to parking capacity would be less than significant.	The Sign District would allow for signs and would not alter the development on the site or the need for parking. As such, the Sign District would have no impact on parking. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
g) Alternative transportation	Information regarding alternative transportation would be readily available on the project site and use of alternative transportation would be highly encouraged. Therefore, the Approved Project would not conflict with adopted policies, plans, or programs of the Los Angeles Department of Transportation (LADOT), Caltrans, Metro, and the LAMC	The Sign District would allow for signs and would not alter the development on the site. As such, the Sign District would have no impact on alternative transportation. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
	supporting alternative transportation. Thus, no impacts would occur for the Approved Project.	
Q. Utilities/Service Systems		
a) Wastewater treatment requirements	Wastewater discharges from the Approved Project would be subject to oversight by City agencies, including the Bureau of Sanitation. City review of project plans, including those for proposed wastewater improvements, would ensure that wastewater discharges would comply with City Ordinance No. 166,060. Therefore, the Approved Project would have no impact on wastewater treatment requirements.	The Sign District would regulate signs for the Metropolis Development. No wastewater would be generated as a result of the operation of signs within the Sign District. Therefore, no impacts would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
b) Construction of new or expansion of water or wastewater treatment facilities d) Served by sufficient water supplies e) Wastewater treatment capacity	The Los Angeles Department of Water and Power (DWP) indicated that the existing water distribution infrastructure is adequate to serve the Approved Project's domestic and fire flows. According to the UWMP, the LADWP would be able to reliably provide water to its customers through the 25-year planning period (2010 to 2035). Therefore, the Approved Project would result in a less than significant impact upon the City's water infrastructure and supply. The Approved Project's wastewater demand would not exceed the capacity of the Hyperion Treatment Plant. Impacts with regard to water and wastewater would be less than significant.	As the signage proposed as part of the Sign District would not result in demand for water or generate wastewater, no impacts would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
c) Construction of new or expansion of stormwater drainage facilities	The Approved Project's reconstruction of certain stormwater drainage facilities and new facilities on and adjacent to the project site would occur to the satisfaction of the City Engineer and would not cause significant environmental effects. Therefore, impacts relative to construction of stormwater drainage facilities would be less than significant.	As the signage that would be allowed by the Sign District would not affect drainage or stormwater drainage facilities, no impacts would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
f) Landfill capacity g) Comply with statutes and regulations related to solid waste	Based on County of Los Angeles Sanitation Districts forecasts, adequate landfill capacity exists to accommodate solid waste generated by the Approved Project. The Approved Project would also comply with the City's solid waste reduction and recycling requirement and would be consistent with the City's Source Reduction and Recycling Element (SRRE) and Solid Waste Management Policy Plan (CiSWMPP), as well as the Framework Element and the Curbside Recycling program. As such, impacts on landfill capacity and solid waste regulations would be less than significant.	The Sign District and associated signage would not change the amount or type of development on the site nor increase the population on the site. No solid waste would result and therefore, no impacts would occur. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.

Environmental Issues	Approved Project Impacts	Proposed Project Impacts
R. Other Topics Addressed		
Wind	Based on an initial screening level wind study, with a minor design change (additional landscaping or a wind screen) to the Phase 1 area of the site, wind conditions would be suitable and comfortable for proposed land uses.[10] No wind conditions that needed to be addressed were identified within the Phase 2 area of the site. With the incorporation of mitigation measures, the Approved Project would result in less than significant impacts with regard to wind.	The Sign District would establish standards for signs. Signage would be integrated into the architecture of the Metropolis Development buildings and would not materially affect wind conditions. Therefore, no impact would result. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
Energy	As the Approved Project would comply with the State Building Energy Efficiency Standards (Title 24) as well as Mitigation Measures C-8 and Q-3 through Q-6, the Approved Project's energy consumption would be less than significant. (A copy of the MMRP is provided in Appendix B of this Addendum for reference.)	The Sign District would allow for 31,018 square feet of signage with varying sizes and levels of illumination with a maximum sign luminance limited to 600 candelas/m^2 at night and 6000 candelas/m^2 during the day. Appendix F of the CEQA Guidelines addresses energy conservation with an emphasis on avoiding or reducing inefficient, wasteful, or unnecessary consumption of energy. As with the Approved Project, the Sign District would comply with the State's Building Energy Efficiency Standards (Title 24) and City of Los Angeles Green Building Code requirements, as applicable. An objective of Title 24 and the City's Green Building Code is to reduce energy consumption through efficient and effective use of lighting equipment. In addition, the Sign District would limit the intensity of lighting, limit hours of operation for some of the signs, and require the use of an electronic control process to limit lighting during certain ambient conditions. Through the design features and compliance with applicable energy regulations, the Sign District would avoid or reduce inefficient, wasteful and unnecessary consumption of energy. In addition, Mitigation Measures C-8 and Q-3 through Q-6 require that energy conservation measures be incorporated into the Project. (A copy of the MMRP is provided in Appendix B of this Addendum for reference.) Therefore, with compliance with the State's Building Energy Efficiency Standards (Title 24) and City of Los Angeles Green Building Code requirements and incorporation of proposed design features and applicable mitigation measures, energy impacts would be less than significant. Accordingly, the Sign District would not result in new or substantially more severe significant impacts compared to the Approved Project.
Telephone	The Approved Project's demand on telephone service would be less than significant.	The Sign District would establish standards for signs. No demand for telephone service would occur. Therefore, no impact would result. Accordingly, the Ordinance would not result in new or substantially more severe significant impacts compared to the Approved Project.

[10] RWDI, Metropolis Los Angeles, Pedestrian Wind Study, May 29, 2014.

SOURCE:Francis Krahe & Associates, Inc., 2017

Metropolis Mixed-Use Project

Figure 14

Lighting Receptor Site Locations

Appendix A

Conceptual Sign Plan, Dated January 17, 2017:

- **Conceptual Sign District Drawings**
- **Conceptual Sign District Matrix**

ESA PCR

Appendix A-1
Conceptual Sign District Drawings

ESA PCR

Conceptual Sign District Drawings
Metropolis Development

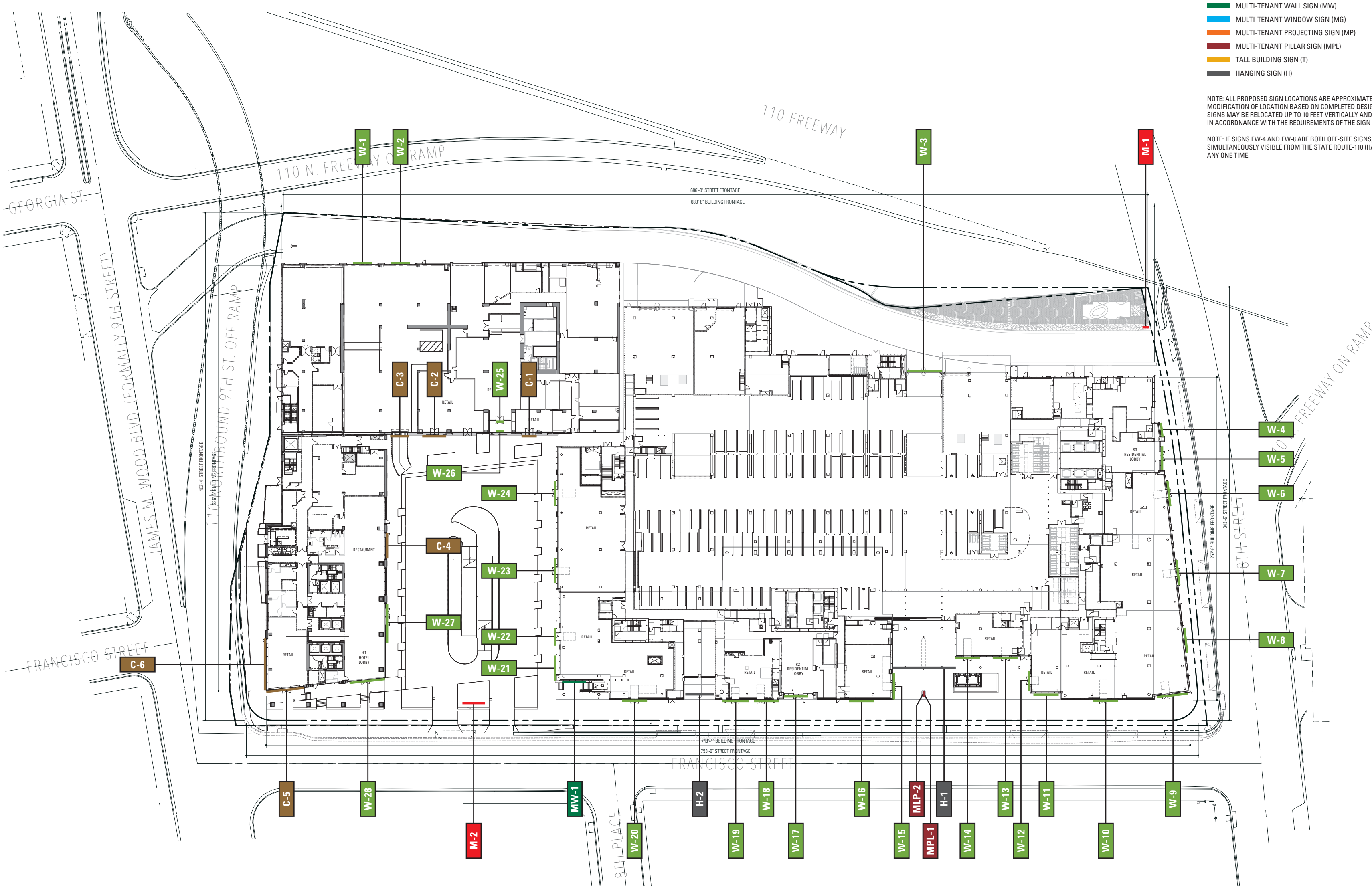
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

Met_GroundFloorPlan.ai

- WALL SIGN (W)
- WINDOW SIGN (G)
- MONUMENT SIGN (M)
- CANOPY SIGN (C)
- ELECTRONIC MESSAGE DISPLAY SIGN (EW)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY PROJECTING SIGN (FP)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY SIGN (F)
- MULTI-TENANT WALL SIGN (MW)
- MULTI-TENANT WINDOW SIGN (MG)
- MULTI-TENANT PROJECTING SIGN (MP)
- MULTI-TENANT PILLAR SIGN (MPL)
- TALL BUILDING SIGN (T)
- HANGING SIGN (H)

NOTE: ALL PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION OF LOCATION BASED ON COMPLETED DESIGNS.
SIGNS MAY BE RELOCATED UP TO 10 FEET VERTICALLY AND 50 FEET HORIZONTALLY IN ACCORDNANCE WITH THE REQUIREMENTS OF THE SIGN DISTRICT.

NOTE: IF SIGNS EW-4 AND EW-8 ARE BOTH OFF-SITE SIGNS, THEY SHALL NOT BE SIMULTANEOUSLY VISIBLE FROM THE STATE ROUTE-110 (HARBOR FREEWAY) AT ANY ONE TIME.



1 GROUND FLOOR PLAN - PROPOSED SIGN LOCATIONS
SCALE: 1/32" = 1'-0"

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Conceptual Sign District Drawings
Metropolis Development
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
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Case No. CPC-2008-4557-SN

Documentation 01.17.17 NP
Revised 09.29.17 NP

Ground Floor Plan
Proposed Sign Locations

G1

Conceptual Sign District Drawings
Metropolis Development

Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
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- WALL SIGN (W)
- WINDOW SIGN (G)
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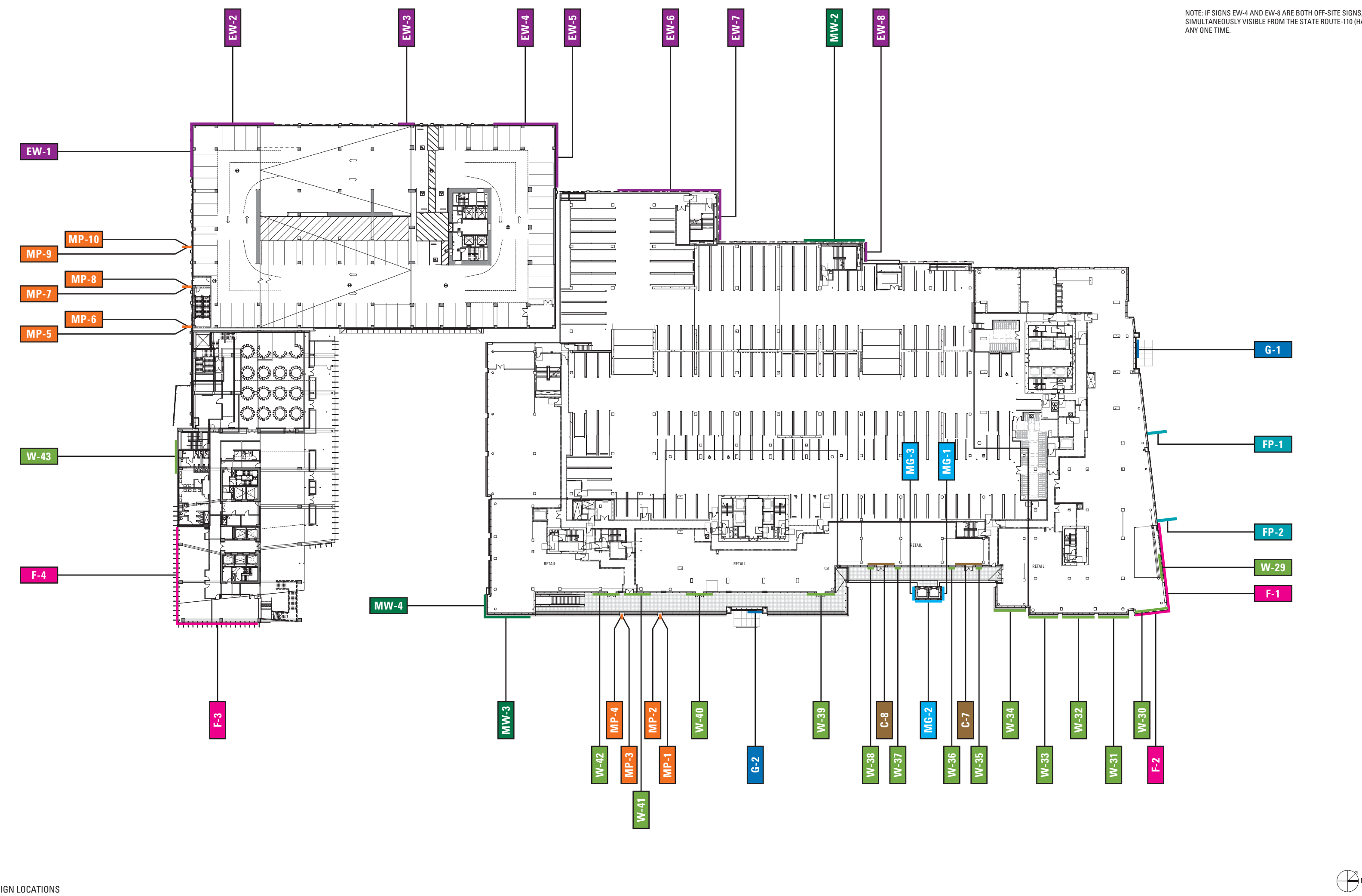
- ELECTRONIC MESSAGE DISPLAY SIGN (EW)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY PROJECTING SIGN (FP)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY SIGN (F)
- MULTI-TENANT WALL SIGN (MW)
- MULTI-TENANT WINDOW SIGN (MG)
- MULTI-TENANT PROJECTING SIGN (MP)
- MULTI-TENANT PILLAR SIGN (MPL)
- TALL BUILDING SIGN (T)
- HANGING SIGN (H)

NOTE: ALL PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION OF LOCATION BASED ON COMPLETED DESIGNS.
SIGNS MAY BE RELOCATED UP TO 10 FEET VERTICALLY AND 50 FEET HORIZONTALLY IN ACCORDNANCE WITH THE REQUIREMENTS OF THE SIGN DISTRICT.

NOTE: IF SIGNS EW-4 AND EW-8 ARE BOTH OFF-SITE SIGNS, THEY SHALL NOT BE SIMULTANEOUSLY VISIBLE FROM THE STATE ROUTE-110 (HARBOR FREEWAY) AT ANY ONE TIME.



1 | THIRD FLOOR PLAN - PROPOSED SIGN LOCATIONS
SCALE: 1/32" = 1'-0"

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Conceptual Sign District Drawings
Metropolis Development
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
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Case No. CPC-2008-4557-SN

Documentation	01.17.17	NP
Revised	09.29.17	NP

Third Floor Plan
Proposed Sign Locations

G2

Conceptual Sign District Drawings
Metropolis Development

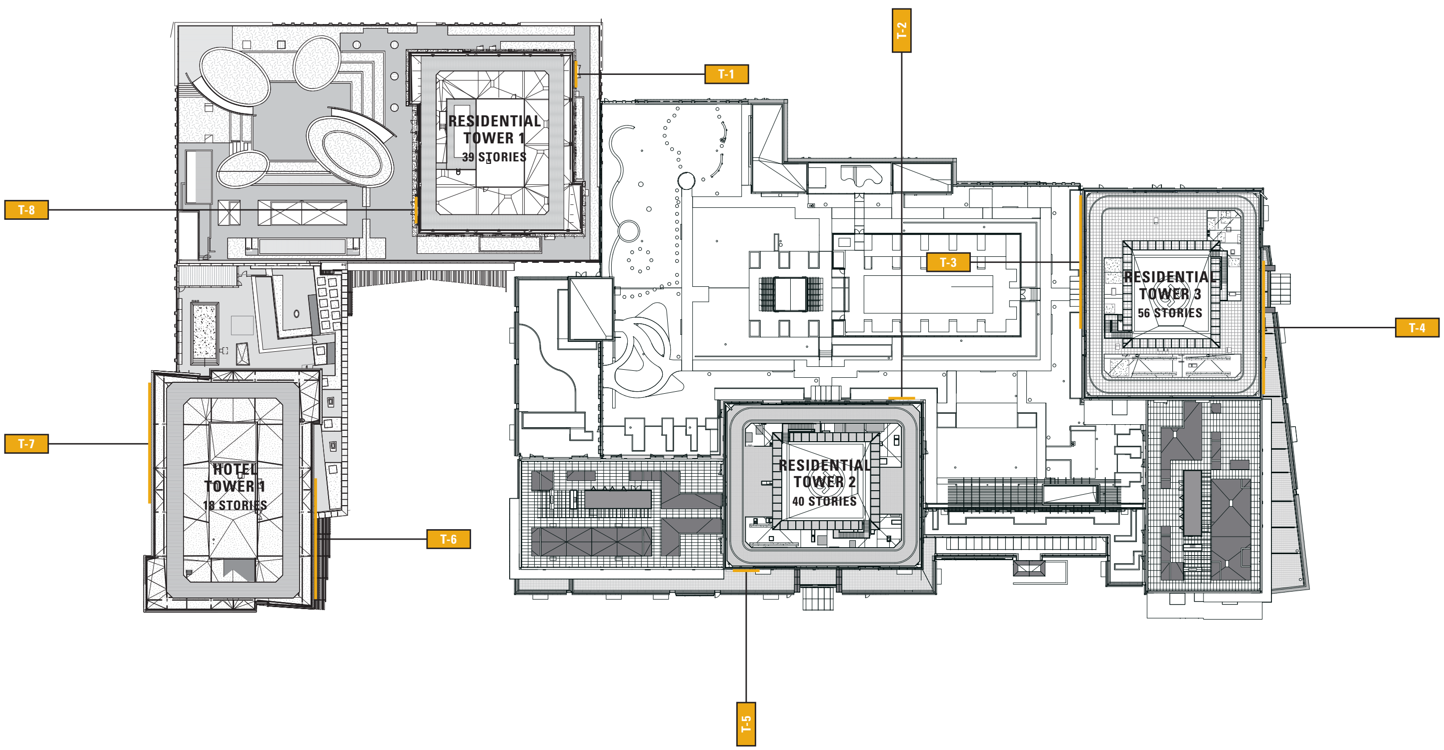
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

Met_RoofPlan.ai

- WALL SIGN (W)
- WINDOW SIGN (G)
- MONUMENT SIGN (M)
- CANOPY SIGN (C)
- ELECTRONIC MESSAGE DISPLAY SIGN (EW)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY PROJECTING SIGN (FP)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY SIGN (F)
- MULTI-TENANT WALL SIGN (MW)
- MULTI-TENANT WINDOW SIGN (MG)
- MULTI-TENANT PROJECTING SIGN (MP)
- MULTI-TENANT PILLAR SIGN (MPL)
- TALL BUILDING SIGN (T)
- HANGING SIGN (H)

NOTE: ALL PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION OF LOCATION BASED ON COMPLETED DESIGNS.
SIGNS MAY BE RELOCATED UP TO 10 FEET VERTICALLY AND 50 FEET HORIZONTALLY IN ACCORDNANCE WITH THE REQUIREMENTS OF THE SIGN DISTRICT.

NOTE: IF SIGNS EW-4 AND EW-8 ARE BOTH OFF-SITE SIGNS, THEY SHALL NOT BE SIMULTANEOUSLY VISIBLE FROM THE STATE ROUTE-110 (HARBOR FREEWAY) AT ANY ONE TIME.



1 | ROOF PLAN - PROPOSED SIGN LOCATIONS
SCALE: 1/32" = 1'-0"

DAVIES
Davies Associates, Inc.
Design Studio
9424 Dayton Way, Suite 217
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310.247.9572
www.daviesla.com

Greenland LA Metropolis Development II, LLC
Contact: Ryan Aubry
777 S. Figueroa Street, Suite 4650
Los Angeles, CA 90017

Conceptual Sign District Drawings
Metropolis Development
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

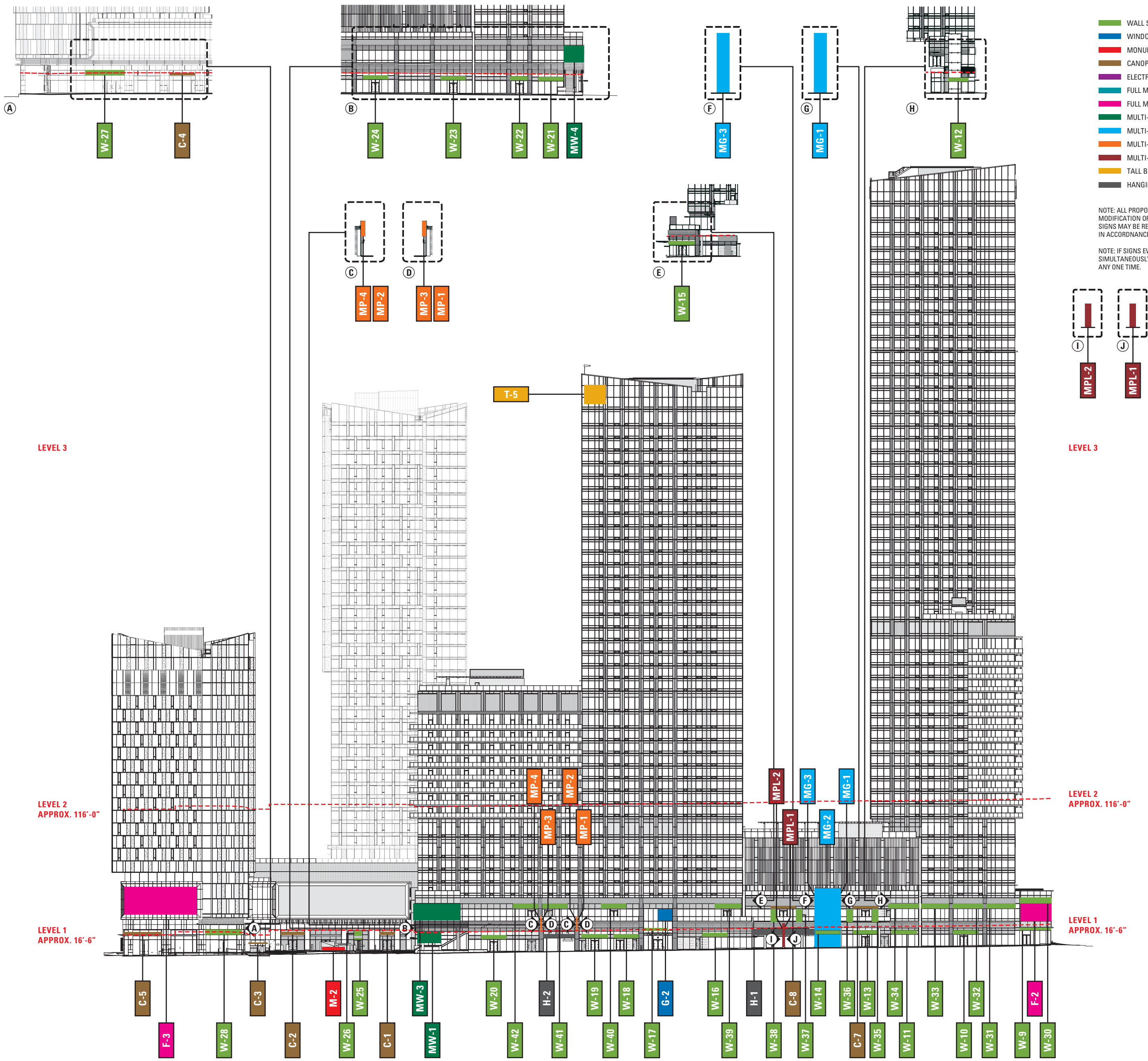
Documentation 01.17.17 NP
Revised 09.29.17 NP

Roof Plan
Proposed Sign Locations

G3

Conceptual Sign District Drawings
Metropolis Development

Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN



1 | EAST ELEVATION (FRANCISCO STREET) - PROPOSED SIGN LOCATIONS
SCALE: 1/32" = 1'-0"

- WALL SIGN (W)
- WINDOW SIGN (G)
- MONUMENT SIGN (M)
- CANOPY SIGN (C)
- ELECTRONIC MESSAGE DISPLAY SIGN (EW)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY PROJECTING SIGN (FP)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY SIGN (F)
- MULTI-TENANT WALL SIGN (MW)
- MULTI-TENANT WINDOW SIGN (MG)
- MULTI-TENANT PROJECTING SIGN (MP)
- MULTI-TENANT PILLAR SIGN (MPL)
- TALL BUILDING SIGN (T)
- HANGING SIGN (H)

NOTE: ALL PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION OF LOCATION BASED ON COMPLETED DESIGNS. SIGNS MAY BE RELOCATED UP TO 10 FEET VERTICALLY AND 50 FEET HORIZONTALLY IN ACCORDNANCE WITH THE REQUIREMENTS OF THE SIGN DISTRICT.

NOTE: IF SIGNS EW-4 AND EW-8 ARE BOTH OFF-SITE SIGNS, THEY SHALL NOT BE SIMULTANEOUSLY VISIBLE FROM THE STATE ROUTE-110 (HARBOR FREEWAY) AT ANY ONE TIME.

Met_EastElev.ai

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Greenland LA Metropolis Development II, LLC
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Los Angeles, CA 90017

Conceptual Sign District Drawings
Metropolis Development
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

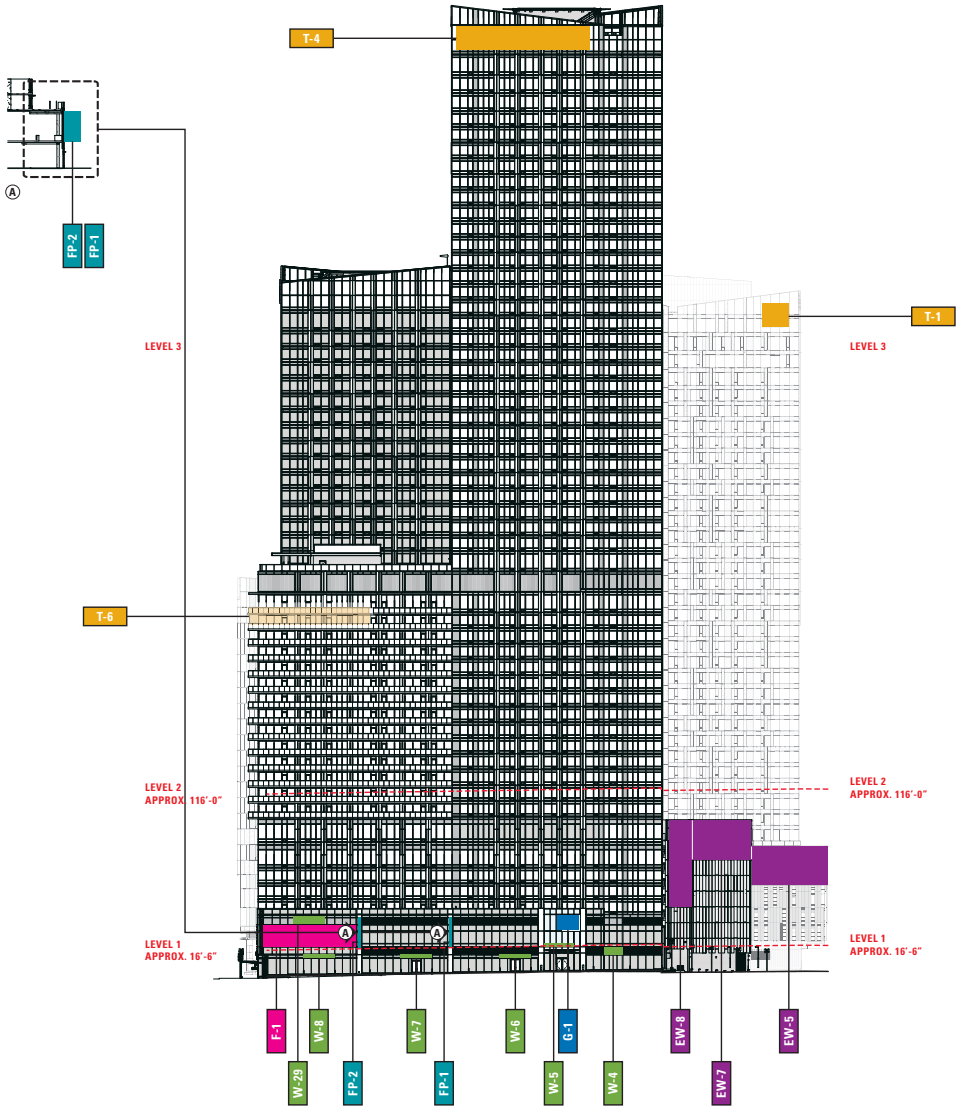
Documentation	01.17.17	NP
Revised	09.29.17	NP

East Elevation
Proposed Sign Locations

G4

Conceptual Sign District Drawings
Metropolis Development

Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN



1 NORTH ELEVATION (8TH STREET) - PROPOSED SIGN LOCATIONS
SCALE: 1/32" = 1'-0"

- WALL SIGN (W)
- WINDOW SIGN (G)
- MONUMENT SIGN (M)
- CANOPY SIGN (C)
- ELECTRONIC MESSAGE DISPLAY SIGN (EW)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY PROJECTING SIGN (FP)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY SIGN (F)
- MULTI-TENANT WALL SIGN (MW)
- MULTI-TENANT WINDOW SIGN (MG)
- MULTI-TENANT PROJECTING SIGN (MP)
- MULTI-TENANT PILLAR SIGN (MPL)
- TALL BUILDING SIGN (T)
- HANGING SIGN (H)

NOTE: ALL PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION OF LOCATION BASED ON COMPLETED DESIGNS. SIGNS MAY BE RELOCATED UP TO 10 FEET VERTICALLY AND 50 FEET HORIZONTALLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE SIGN DISTRICT.

NOTE: IF SIGNS EW-4 AND EW-8 ARE BOTH OFF-SITE SIGNS, THEY SHALL NOT BE SIMULTANEOUSLY VISIBLE FROM THE STATE ROUTE-110 (HARBOR FREEWAY) AT ANY ONE TIME.

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Grantee/LA Metropolis Development II, LLC
Contact: Ryan Ashry
777 S. Figueroa Street, Suite 4400
Los Angeles, CA 90017

Conceptual Sign District Drawings
Metropolis Development
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

01.17.17	NP
09.29.17	NP

Documentation Revised

North Elevation
Proposed Sign Locations

G5

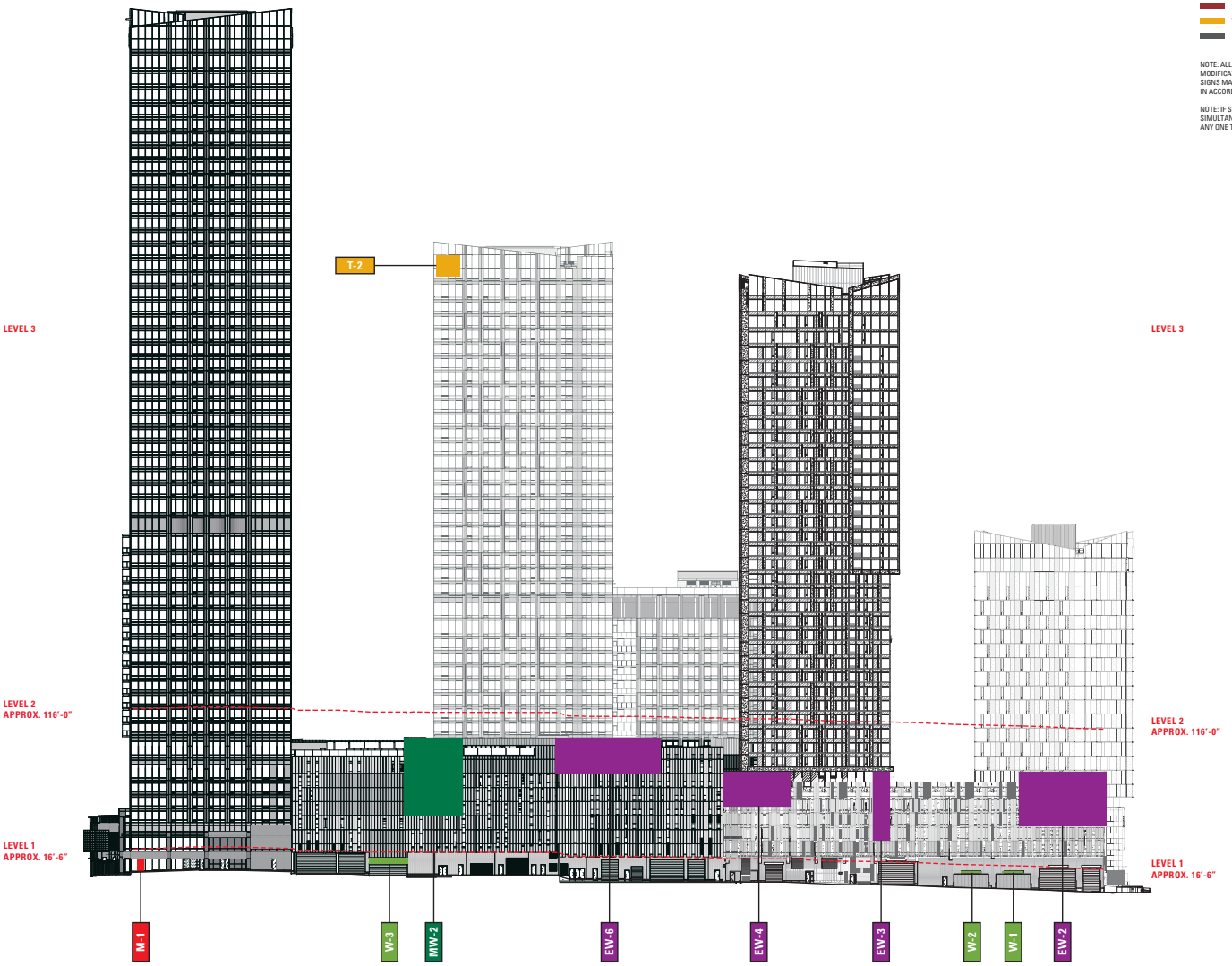
Conceptual Sign District Drawings
Metropolis Development

Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

- WALL SIGN (W)
- WINDOW SIGN (G)
- MONUMENT SIGN (M)
- CANOPY SIGN (C)
- ELECTRONIC MESSAGE DISPLAY SIGN (EW)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY PROJECTING SIGN (FP)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY SIGN (F)
- MULTI-TENANT WALL SIGN (MW)
- MULTI-TENANT WINDOW SIGN (MG)
- MULTI-TENANT PROJECTING SIGN (MP)
- MULTI-TENANT PILLAR SIGN (MPL)
- TALL BUILDING SIGN (T)
- HANGING SIGN (H)

NOTE: ALL PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION OF LOCATION BASED ON COMPLETED DESIGNS. SIGNS MAY BE RELOCATED UP TO 10 FEET VERTICALLY AND 50 FEET HORIZONTALLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE SIGN DISTRICT.

NOTE: IF SIGNS EW-4 AND EW-8 ARE BOTH OFF-SITE SIGNS, THEY SHALL NOT BE SIMULTANEOUSLY VISIBLE FROM THE STATE ROUTE-110 (HARBOR FREEWAY) AT ANY ONE TIME.



1 | WEST ELEVATION (110 FREEWAY) - PROPOSED SIGN LOCATIONS
SCALE: 1/32" = 1'-0"

DAVIES
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9436 Dayton Way, Suite 217
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Contact: Ryan Autry
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Los Angeles, CA 90017

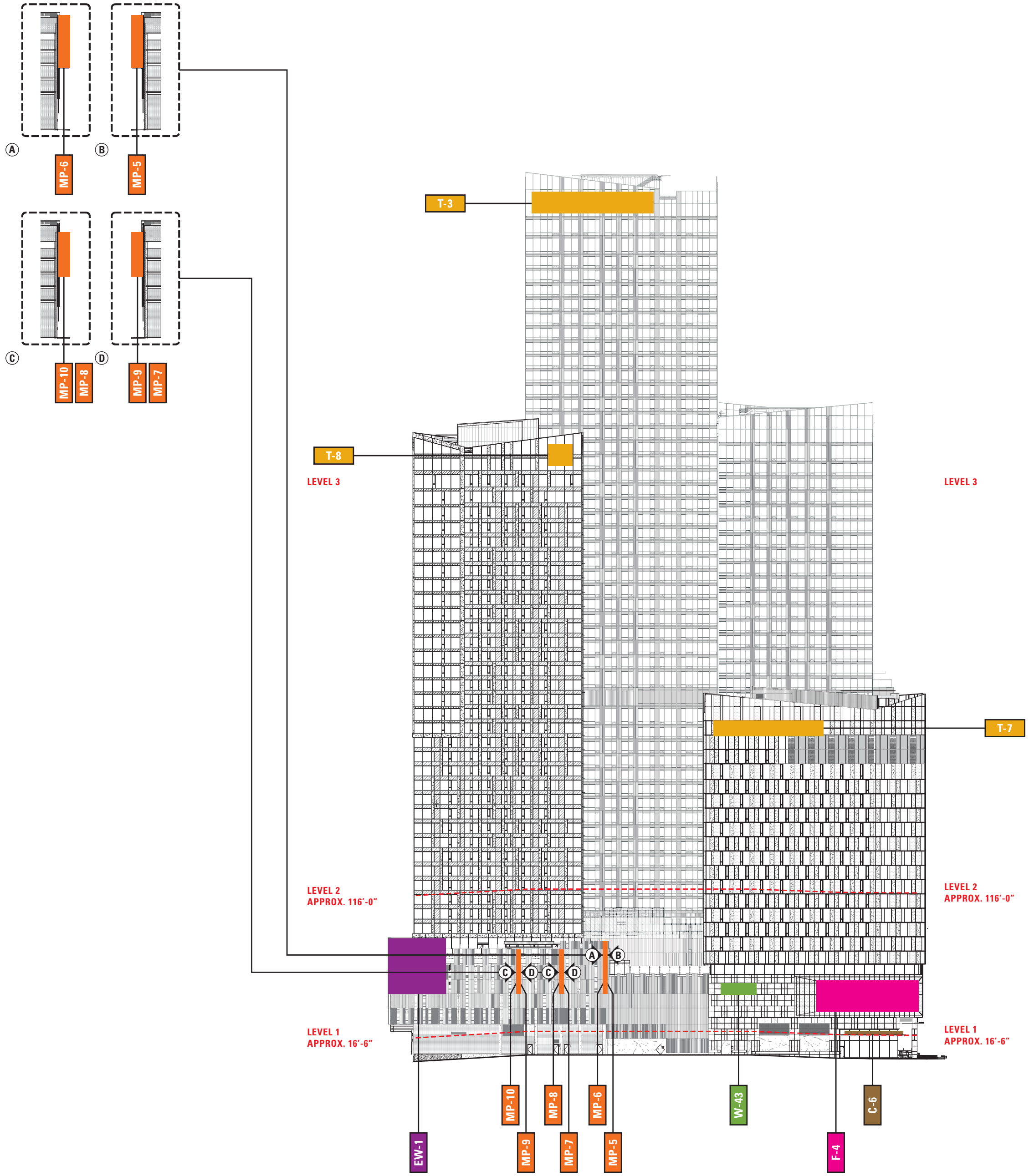
Conceptual Sign District Drawings
Metropolis Development
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

Documentation	01.17.17 NP
Revised	09.29.17 NP

West Elevation
Proposed Sign Locations

Conceptual Sign District Drawings
Metropolis Development

Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN



1 SOUTH ELEVATION (JAMES M. WOOD BLVD.) - PROPOSED SIGN LOCATIONS
SCALE: 1/32" = 1'-0"

Met_SouthElev.ai

- WALL SIGN (W)
- WINDOW SIGN (G)
- MONUMENT SIGN (M)
- CANOPY SIGN (C)
- ELECTRONIC MESSAGE DISPLAY SIGN (EW)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY PROJECTING SIGN (FP)
- FULL MOTION ELECTRONIC MESSAGE DISPLAY SIGN (F)
- MULTI-TENANT WALL SIGN (MW)
- MULTI-TENANT WINDOW SIGN (MG)
- MULTI-TENANT PROJECTING SIGN (MP)
- MULTI-TENANT PILLAR SIGN (MPL)
- TALL BUILDING SIGN (T)
- HANGING SIGN (H)

NOTE: ALL PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION OF LOCATION BASED ON COMPLETED DESIGNS.
SIGNS MAY BE RELOCATED UP TO 10 FEET VERTICALLY AND 50 FEET HORIZONTALLY IN ACCORDNANCE WITH THE REQUIREMENTS OF THE SIGN DISTRICT.

NOTE: IF SIGNS EW-4 AND EW-8 ARE BOTH OFF-SITE SIGNS, THEY SHALL NOT BE SIMULTANEOUSLY VISIBLE FROM THE STATE ROUTE-110 (HARBOR FREEWAY) AT ANY ONE TIME.

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Greenland LA Metropolis Development II, LLC
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Los Angeles, CA 90017

Conceptual Sign District Drawings
Metropolis Development
Site Location: The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north
Los Angeles, CA 90017
Case No. CPC-2008-4557-SN

Documentation	01.17.17	NP
Revised	09.29.17	NP

South Elevation
Proposed Sign Locations

G7

Appendix A-2
Conceptual Sign District Matrix

ESA PCR

CONCEPTUAL SIGN DISTRICT MATRIX

9/29/2017

Metropolis Sign District
Case Number: CPC-2008-4557-SN

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
8th St.	North	Podium	F-1	Full Motion Electronic Message Display Sign			Off Site	13.68	x	58.875	806
8th St.	North	Podium	FP-1	Full Motion Electronic Message Display Projecting Sign			Off Site	19.406	x	10.375	202
8th St.	North	Podium	FP-2	Full Motion Electronic Message Display Projecting Sign			Off Site	19.406	x	10.375	202
8th St.	North	Podium	G-1	Window Sign			On Site	9	x	14	126
8th St.	North	Res. Tower 1	T-1	Tall Building Sign			On Site	15	x	17	255
8th St.	North	Res. Tower 3	T-4	Tall Building Sign			On Site	15	x	85	1,275
8th St.	North	Hotel	T-6	Tall Building Sign			On Site	11	x	77	847
8th St.	North	Podium	W-4	Wall Sign	Tenant Sign		On Site	5	x	12	60
8th St.	North	Podium	W-5	Wall Sign			On Site	2	x	19	38
8th St.	North	Podium	W-6	Wall Sign	Tenant Sign		On Site	2	x	20	40
8th St.	North	Podium	W-7	Wall Sign	Tenant Sign		On Site	2	x	20	40
8th St.	North	Podium	W-8	Wall Sign	Tenant Sign		On Site	2	x	20	40
8th St.	North	Podium	W-29	Wall Sign	Tenant Sign		On Site	5	x	20	100
SUBTOTAL											4,031

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
Francisco St.	East	Res. Tower 1	C-1	Canopy Sign	Tenant Sign		On Site	2	x	12	24
Francisco St.	East	Res. Tower 1	C-2	Canopy Sign	Tenant Sign		On Site	2	x	19	38
Francisco St.	East	Res. Tower 1	C-3	Canopy Sign			On Site	1	x	15	15
Francisco St.	East	Hotel	C-4	Canopy Sign	Tenant Sign		On Site	2	x	20	40
Francisco St.	East	Hotel	C-5	Canopy Sign	Tenant Sign		On Site	2	x	30	60
Francisco St.	East	Podium	C-7	Canopy Sign	Tenant Sign		On Site	2	x	20	40
Francisco St.	East	Podium	C-8	Canopy Sign	Tenant Sign		On Site	2	x	20	40
Francisco St.	East	Podium	F-2	Full Motion Electronic Message Display Sign			Off Site	13.688	x	24.330	334
Francisco St.	East	Hotel	F-3	Full Motion Electronic Message Display Sign			Off Site	21.667	x	57.417	1,245
Francisco St.	East	Podium	G-2	Window Sign			On Site	9	x	11	99
Francisco St.	East	Podium	H-1	Hanging Sign			On Site	5	x	50	250
Francisco St.	East	Podium	H-2	Hanging Sign			On Site	3	x	25	75
Francisco St.	East	Courtyard	M-2	Monument Sign			On Site	3	x	18	54
Francisco St.	East	Podium	MG-1	Multi-Tenant Window Sign	Tenant Sign	6	On Site	47	x	10	470
Francisco St.	East	Podium	MG-2	Multi-Tenant Window Sign	Tenant Sign	12	On Site	47	x	21	987
Francisco St.	East	Podium	MG-3	Multi-Tenant Window Sign	Tenant Sign	6	On Site	47	x	10	470
Francisco St.	East	Podium	MP-1	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MP-2	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MP-3	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MP-4	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MPL-1	Multi-Tenant Pillar Sign	Tenant Sign	4	On Site	5	x	19	95
Francisco St.	East	Podium	MPL-2	Multi-Tenant Pillar Sign	Tenant Sign	4	On Site	5	x	19	95
Francisco St.	East	Podium	MW-1	Multi-Tenant Wall Sign	Tenant Sign	6	On Site	9	x	19	171
Francisco St.	East	Podium	MW-3	Multi-Tenant Wall Sign	Tenant Sign	9	On Site	13	x	37	481
Francisco St.	East	Podium	MW-4	Multi-Tenant Wall Sign	Tenant Sign	6	On Site	13	x	16	208

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
Francisco St.	East	Res. Tower 2	T-5	Tall Building Sign			On Site	15	x	17	255
Francisco St.	East	Podium	W-9	Wall Sign	Tenant Sign		On Site	2	x	25	50
Francisco St.	East	Podium	W-10	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-11	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-12	Wall Sign	Tenant Sign		On Site	3	x	16	48
Francisco St.	East	Podium	W-13	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-14	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-15	Wall Sign	Tenant Sign		On Site	3	x	21	63
Francisco St.	East	Podium	W-16	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-17	Wall Sign			On Site	2	x	19	38
Francisco St.	East	Podium	W-18	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-19	Wall Sign	Tenant Sign		On Site	3	x	21	63
Francisco St.	East	Podium	W-20	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-21	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-22	Wall Sign	Tenant Sign		On Site	3	x	14	42
Francisco St.	East	Podium	W-23	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-24	Wall Sign			On Site	3	x	20	60
Francisco St.	East	Res. Tower 1	W-25	Wall Sign			On Site	1	x	6	6
Francisco St.	East	Res. Tower 1	W-26	Wall Sign			On Site	4	x	7	28
Francisco St.	East	Hotel	W-27	Wall Sign			On Site	4	x	31	124
Francisco St.	East	Hotel	W-28	Wall Sign			On Site	4	x	29	116
Francisco St.	East	Podium	W-30	Wall Sign	Tenant Sign		On Site	5	x	25	125
Francisco St.	East	Podium	W-31	Wall Sign	Tenant Sign		On Site	4	x	23	92
Francisco St.	East	Podium	W-32	Wall Sign	Tenant Sign		On Site	4	x	24	96
Francisco St.	East	Podium	W-33	Wall Sign	Tenant Sign		On Site	4	x	22	88
Francisco St.	East	Podium	W-34	Wall Sign	Tenant Sign		On Site	4	x	24	96
Francisco St.	East	Podium	W-35	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-36	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-37	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-38	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-39	Wall Sign	Tenant Sign		On Site	4	x	21	84
Francisco St.	East	Podium	W-40	Wall Sign	Tenant Sign		On Site	4	x	20	80
Francisco St.	East	Podium	W-41	Wall Sign	Tenant Sign		On Site	4	x	20	80
Francisco St.	East	Podium	W-42	Wall Sign	Tenant Sign		On Site	4	x	20	80
SUBTOTAL											7,889

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	C-6	Canopy Sign	Tenant Sign		On Site	2	x	41	82
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	EW-1	Electronic Message Display Sign			On Site	38.667	x	40.281	1,558
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	F-4	Full Motion Electronic Message Display Sign			Off Site	21.667	x	71.5	1,550
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-5	Multi-Tenant Projecting Sign	Tenant Sign	4	On Site	37	x	8	296
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-6	Multi-Tenant Projecting Sign	Tenant Sign	4	On Site	37	x	8	296
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-7	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-8	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-9	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-10	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 3	T-3	Tall Building Sign			On Site	15	x	85	1,275
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	T-7	Tall Building Sign			On Site	11	x	77	847
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	T-8	Tall Building Sign			On Site	15	x	17	255
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	W-43	Wall Sign			On Site	8	x	25	200
SUBTOTAL											7,351
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-2	Electronic Message Display Sign			On Site	38.667	x	62.167	2,404
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-3	Electronic Message Display Sign			On Site	49	x	12	588
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-4	Electronic Message Display Sign			Off Site	24.5	x	48	1,176
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-5	Electronic Message Display Sign			On Site	24.5	x	48	1,176
State Route 110 (Harbor Freeway)	West	Podium	EW-6	Electronic Message Display Sign			On Site	25.052	x	74.958	1,878
State Route 110 (Harbor Freeway)	West	Podium	EW-7	Electronic Message Display Sign			On Site	25.052	x	37.208	933
State Route 110 (Harbor Freeway)	West	Podium	EW-8	Electronic Message Display Sign			Off Site	55.052	x	14.583	803
State Route 110 (Harbor Freeway)	West	Podium	M-1	Monument Sign			On Site	8	x	5	40
State Route 110 (Harbor Freeway)	West	Podium	MW-2	Multi-Tenant Wall Sign	Tenant Sign	10	On Site	56	x	42	2,352
State Route 110 (Harbor Freeway)	West	Res. Tower 2	T-2	Tall Building Sign			On Site	15	x	17	255
State Route 110 (Harbor Freeway)	West	Res. Tower 1	W-1	Wall Sign			On Site	1	x	15	15
State Route 110 (Harbor Freeway)	West	Res. Tower 1	W-2	Wall Sign			On Site	1	x	15	15
State Route 110 (Harbor Freeway)	West	Podium	W-3	Wall Sign			On Site	4	x	28	112
SUBTOTAL											11,747
GRAND TOTAL											**31,018**

Appendix B

Mitigation Monitoring and Reporting Program

ESA PCR

Appendix B

Metropolis Development – Mitigation Monitoring and Reporting Program

ESA PCR

APPENDIX B
Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) includes mitigation measures as well as a listing of applicable project requirements (regulation and conditions of approval) and Project Features (components of the project design).[56] The MMRP has been prepared pursuant to Public Resources Code Section 21081.6, which requires adoption of a MMRP for projects in which the Lead Agency has required changes or adopted mitigation to avoid significant environmental effects. The Lead Agency for the Metropolis Mixed Use Project is the CRA/LA, a Designated Local Authority (Successor Agency to the Community Redevelopment Agency of the City of Los Angeles). In cases in which the CRA is indicated in a mitigation measure or as an Enforcement or Monitoring Agency, the CRA means CRA/LA although the text has not been changed to reflect the change in the agency name.

The MMRP describes the procedures for the implementation of all mitigation measures applicable to the Metropolis Mixed-Use Project, including mitigation measures identified in the Certified Final Environmental Impact Report, October 1989 (SCH #1988062220), the Addendum to The Certified Environmental Impact Report for the Metropolis Mixed-Use Project, September 2005 (2005 Addendum), the Final Supplement to the Certified EIR, January 2007, the 2012 Addendum to the Certified EIR, and the 2014 Addendum to the Certified EIR.

It is the intent of the MMRP to: (1) verify satisfaction of the mitigation measures of the Addendum; (2) provide a methodology to document implementation of the required mitigation; (3) provide a record of the Monitoring Program; (4) identify monitoring responsibility; (5) establish administrative procedures for the clearance of mitigation measures; (6) establish the frequency and duration of monitoring; and (7) utilize existing review processes where feasible. The MMRP lists mitigation measures by environmental topic as analyzed in the Addendum. Each mitigation measure provides the following information:

- The enforcement agency (i.e., the agency with the authority to enforce the mitigation measure);
- The monitoring agency (i.e., the agency to which mitigation reports involving feasibility, compliance, implementation, and development operation are made);
- The phase of the Project during which the mitigation measure should be monitored (i.e., pre-construction, construction, or occupancy);

[56] This MMRP is taken from Addendum 7 for the Metropolis Development with the modification made to Mitigation Measure O-4 during the City's approval process.

- The monitoring frequency and duration of monitoring and reporting (i.e., once at site plan review or monthly during construction); and
- The administrative actions indicating compliance with mitigation measures (i.e., Issuance of building permit or Monthly Statements of Compliance).

The Applicant shall be obligated to demonstrate that compliance with the required mitigation measures has been effected. The entity responsible for the implementation of all mitigation measures shall be the Applicant unless otherwise noted.

Following mitigation measures, project requirements and project features are also listed under each resource heading. In general, the project requirements address regulatory requirements and standard City conditions and processes, while the project features are characteristics of the project as proposed. These requirements and features will be implemented independent from the MMRP through standard regulatory processes and implementation of the project design.

A. Aesthetics

Mitigation Measures

No mitigation measures, since the Project would have no significant impact on aesthetics.

Project Requirements

- Rooftop Structures: All rooftop mechanical equipment and systems shall be adequately screened;
- Plant street trees and remove any existing trees within dedicated streets as required by the Street Tree Division of the Bureau of Street Maintenance.
- Compliance with Los Angeles Municipal Code (LAMC), Chapter.1, Section 1.21.A.5(K) requiring all lights used to illuminate a parking area to be designed, located, and arranged so as to reflect the light away from any streets and any adjacent premises; and
- Submittal of street lighting plans to the Bureau of Street Lighting pursuant to LAMC, Chapter 1, Section 12.08.
- Building Glazing: The use of highly reflective glass materials on the building tower shall be prohibited. Glazing at the street level shall allow indoor functions to be visible from the outside.

Project Features

- Lighting on site would generally consist of limited architectural lighting, as well as security lighting;
- Exterior lighting would be shielded, where feasible, and directed away from surrounding uses; and
- The Project would not use highly reflective materials.

B. Agricultural Resources

Mitigation Measures

No mitigation measures, since the Project would have no significant impact on agricultural resources.

Project Requirements

Not applicable.

Project Features

Not applicable.

C. Air Quality

Mitigation Measures

Mitigation Measure C-1: All unpaved demolition and construction areas shall be wetted at least twice a day during excavation to reduce emissions and meet SCAQMD District Rule 403.

Enforcement Agency: South Coast Air Quality Management District

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by Contractor

Mitigation Measure C-2: The SCAQMD recommends that general contractors maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading or unloading queues shall be kept with their engines off, when not in use, to reduce vehicle emissions. The SCAQMD recommends that construction activities be phased and scheduled to avoid emissions peaks, and that construction be discontinued during first and second stage smog alerts.

Enforcement Agency: South Coast Air Quality Management District

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by Contractor

Mitigation Measure C-3: Non toxic stabilizers shall be applied according to manufacturer's specification or vegetation shall be planted on all inactive construction areas (previously graded areas inactive for 10 days or more and not scheduled for additional construction activities within 12 months, to the extent feasible).

Enforcement Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by Contractor

Mitigation Measure C-4: All trucks hauling dirt, sand, soil or other loose materials off-site shall be covered or wetted or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer).

Enforcement Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by Contractor

Mitigation Measure C-5: All equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

Enforcement Agency: South Coast Air Quality Management District

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by Contractor

Mitigation Measure C-6: Traffic speeds on all unpaved roads shall not exceed 15 mph.

Enforcement Agency: City of Los Angeles Department of Building and Safety

Monitoring Agency: City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by Contractor

Mitigation Measure C-7: Schedule deliveries during off-peak traffic periods, as feasible, to encourage the reduction of trips during the most congested periods.

Enforcement Agency: South Coast Air Quality Management District

Monitoring Agency: South Coast Air Quality Management District

Monitoring Phase: Operation and construction

Monitoring Frequency: Ongoing during operation and construction

Action Indicating Compliance with Mitigation Measure(s): Annual compliance report submitted by the Applicant

Mitigation Measure C-8: The Project shall be designed and operated to conserve energy. This would reduce off-site emissions associated with the generation of electricity and the combustion of natural gas for the Project.

Enforcement Agency: CRA

Monitoring Agency: CRA; Department of Building and Safety

Monitoring Phase: Pre-construction; Operation

Monitoring Frequency: Ongoing during operation

Action Indicating Compliance with Mitigation Measure(s): Approval of modification of vesting tentative tract map

Mitigation Measure C-9: Convenient access to existing or any future Downtown public transportation system or transit stops shall be incorporated into the design of the Project to encourage use of mass transportation.

Enforcement Agency: CRA

Monitoring Agency: CRA; City of Los Angeles Department of Transportation

Monitoring Phase: Pre-construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of public transportation system features prior to approval of final plans

Mitigation Measure C-10: In the event that an on-site childcare facility is incorporated into the Modified Project, locate such facility away from parking structure, vehicular access and ventilation outlets.

Enforcement Agency: CRA; City of Los Angeles Department of Building and Safety;

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of facility location prior to approval of final plans

Project Requirements

- Compliance with SCAQMD rules, such as Rule 403 (fugitive dust control measures) and Rules 201, 202, and 203 (permits for boilers, heaters and generators);
- Installation of an air filtration system (either charcoal or electronic) within the project to reduce the air quality effects on the project residents;
- Inclusion of an air filtration system (either charcoal or electronic) in any air heating and/or air conditioning units that may be installed within the proposed project to reduce the air quality effects on the project residents;
- Compliance with SCAQMD Rule 402 (Nuisance); and
- Implementation of industry standard odor control practices.

Project Features

Not applicable.

D. Biological Resources

Mitigation Measures

No mitigation measures, since the Project would have no significant impact on biological resources.

Project Requirements

Not applicable.

Project Features

Not applicable.

E. Cultural Resources

Mitigation Measures

Mitigation Measure E-1: If a paleontological resource is unexpectedly discovered during excavation-related activities by construction personnel, a qualified paleontologist shall be notified of the unanticipated paleontological discovery. In the event of an unanticipated discovery of a true or trace fossil remain during associated excavation, excavation and/or grading activities within a 100-foot radius of the find shall be temporarily halted or diverted until the discovery is examined by the Project paleontologist. The paleontologist shall notify the appropriate agencies to the location of the find. Significant fossils shall be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during the salvage program shall be cleaned, sorted, catalogued, and then deposited in a public, non-profit institution with research interests in the materials.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning

Monitoring Phase: Construction

Monitoring Frequency: As needed during construction

Action Indicating Compliance with Mitigation Measure(s): If no paleontological resources are found, monthly compliance report submitted by Contractor; if vertebrate fossil resources are found, completion of mitigation plan(s) by a paleontologist to satisfaction of CRA

Archaeological Resources

Project Requirements

- Compliance with the National Historic Preservation Act (NHPA); the California Register of Historical Resources; Public Resources Code 5024; and the City of Los Angeles Cultural Heritage Ordinance (Los Angeles Administrative Code, Section 22.130), as amended, regarding the protection of archaeological resources;
- Compliance with the policies of the California Office of Historic Preservation; and
- Compliance with other applicable federal, state, and local regulations regarding the protection of archaeological resources.

Project Features

Not applicable.

Paleontological Resources

Project Requirements

- Compliance with Section 5097.5 of the Public Resources Code, which prohibits any unauthorized removal of paleontological resources;
- Compliance with City of Los Angeles Conservation Element, Chapter II, Section 3, which specifies that if significant resources are discovered, authorities must be notified and the designated paleontologist may cease construction activity in that portion of the project site; and
- Adherence to the Society of Vertebrate Paleontology (SVP) standard guidelines that outline acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation.

Project Features

Not applicable.

F. Geology/Soils

Mitigation Measures

Mitigation Measure F-1: The existing geotechnical investigation of the Project site shall be augmented as necessary to identify definitive engineering and design specifications appropriate to the project as proposed in the subject geotechnical context, to the satisfaction of the City Geologist.

Enforcement Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by contractor; periodic field inspection sign-off

Project Requirements

- Compliance with the construction requirements and seismic provisions of the Uniform Building Code (UBC) and Los Angeles Municipal Code (LAMC);
- Implementation of contemporary engineering design and construction standards, including those provided in the geotechnical investigation for the Project site, to the satisfaction of the City Geologist;
- Implementation of a SUSMP and SWPPP pursuant to the Clean Water Act (CWA);
- Submittal and approval of a landscape plan to the City of Los Angeles; and
- All open space areas not used for buildings, driveways, parking areas, recreational facilities or walks shall be attractively landscaped including an automatic irrigation system, in accordance with a landscape plan prepared by a licensed landscape architect, licensed architect or landscape contractor to the satisfaction of the Planning Department.

Project Features

Not applicable.

G. Hazards/Hazardous Materials

Mitigation Measures

Mitigation Measure G-1: Construction contracts shall include provisions requiring continuous compliance with all applicable federal, state, and local government regulations and conditions related to hazardous materials and waste management.

Enforcement Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once prior to construction

Action Indicating Compliance with Mitigation Measure(s): Confirmation of contract provisions regarding hazardous materials and waste management prior to issuance of grading permit

Mitigation Measure G-2: Use non-toxic or less toxic substances in project construction or operation, where possible.

Enforcement Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Agency: CRA; City of Los Angeles Department of Building and Safety

Monitoring Phase: Construction; Operation

Monitoring Frequency: Ongoing during construction and operation

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance reports submitted by Contractor during construction; Annual compliance reports submitted by Applicant during operation

Mitigation Measure G-3: During subsurface excavation activities, including borings, trenching, and grading, applicable worker safety measures shall be implemented as required to preclude an exposure to unsafe levels of methane and hydrogen sulfide. If evidence of methane or hydrogen sulfide is found, immediate steps shall be taken to comply with applicable provisions in the Los Angeles Municipal Code and other practices and requirements of the Los Angeles Department of Building and Safety and the Los Angeles Fire Department.

Enforcement Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report submitted by contractor

Mitigation Measure G-4: Any contaminated soil, groundwater and/or toxic materials removed during excavation and grading shall be evaluated and excavated/disposed of, treated in-situ (in-place), or otherwise managed in accordance with applicable regulatory requirements. If contamination is discovered during grading activities, grading within such an area shall be temporarily halted and redirected around the area until the appropriate evaluation and remediation measures are implemented so that the site is cleaned up to safe levels.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety; Regional Water Quality Control Board; California Department of Toxic Substances Control

Monitoring Phase: Construction

Monitoring Frequency: As needed during construction

Action Indicating Compliance with Mitigation Measure(s): Confirmation of compliance with any hazardous materials remediation requirements consistent with applicable regulations prior to grading or issuance of building permit

Mitigation Measure G-5: Any USTs, if encountered during excavation activities, shall be removed in accordance to LAFD and RWQCB regulations.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: CRA; Los Angeles Fire Department; Regional Water Quality Control Board

Monitoring Phase: Construction

Monitoring Frequency: As needed during construction

Action Indicating Compliance with Mitigation Measure(s): If UST's are encountered, removal in accordance with applicable regulations shall be confirmed by LAFD prior to issuance of building permit

Mitigation Measure G-6: Additional assessment of fuel related constituents present in on-site subsurface soils shall be conducted prior to issuance of grading permits, pursuant to applicable standards to evaluate the potential for health risk and the need for remediation. If remediation is required the lead agency(ies) with jurisdiction shall be notified and immediate and effective measures shall be taken to ensure the health and safety of the public and workers, and to protect the environment. Remediation shall be completed in accordance with applicable requirements to the satisfaction of the agency(ies) with jurisdiction.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety; Regional Water Quality Control Board; California Department of Toxic Substances Control

Monitoring Phase: Construction

Monitoring Frequency: As needed during construction

Action Indicating Compliance with Mitigation Measure(s): Confirmation of compliance with any hazardous materials remediation requirements consistent with applicable regulations prior to grading or issuance of building permit

Project Requirements

- Compliance with OSHA regulations;
- Compliance with SWRCB and LAFD requirements in the event of discovery of an UST;
- The transport and use of hazardous materials would be contained or consumed on site;
- Adherence to manufacturer's instructions and applicable local/state regulations for the use and disposal of hazardous materials;
- Compliance with Los Angeles City Building Codes regarding methane control, if applicable;

- Compliance with Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, which is established to ensure air safety by regulating the construction or alteration of buildings or structures that may affect airport operations, is applicable to the project.
- Filing of FAA Form 7460-1, Notice of Proposed Construction or Alteration, with the FAA;
- Compliance with FAA's regulations regarding rooftop lighting and marking for structures over 200 feet; and
- Compliance with applicable City Building and Safety and Fire Code design standards for emergency personnel and equipment access, security equipment, fire water flow provisions, and building evacuation plans.

Project Features

- Large quantities of hazardous materials and waste would not be used, stored, or disposed of on site.

H. Hydrology/Water Quality

Mitigation Measures

No mitigation measures are required, since the Project would have no significant impacts on hydrology/water quality.

Project Requirements

- Implementation of SWPPP and SUSMP pursuant to the Clean Water Act;
- Drainage district design review of a site specific hydrology report
- Compliance with LAMC drainage design requirements
- Implementation of contemporary and standard engineering practices;
- That drainage matters be taken care of satisfactory to the City Engineer; and
- That satisfactory street, sewer and drainage plans and profiles as required, together with a lot grading plan of the tract and any necessary topography of adjacent areas be submitted to the City Engineer

Project Features

Not applicable.

I. Land Use/Planning

Mitigation Measures

No mitigation measures are required, since the Project would have no significant impacts on land use and planning.

Project Requirements

- Compliance with the City of Los Angeles Zoning Code, which regulates the uses and the physical size and organization of structures and other spaces; and

Project Features

- The Project would be designed to encourage pedestrian use of Francisco Street and Eighth Street by providing Plaza Level retail uses and pedestrian amenities (e.g., arcades, awnings, security, lighting, landscaping, and outdoor sculptures).

J. Mineral Resources

Mitigation Measures

No mitigation measures are required, since the Project would have no significant impacts on mineral resources.

Project Requirements

Not applicable.

Project Features

Not applicable.

K. Noise

Mitigation Measures

Mitigation Measure K-1: With the exception of extended hours for a continuous concrete pour, hauling of excavated material and associated activities, and labor starting time/use of non-mechanical hand tools, the Project shall comply with or exceed the minimum requirements of the Los Angeles Noise Ordinance, which allows construction between 7:00 A.M. and 9:00 P.M. weekdays, and between 8:00 A.M. and 6:00 P.M. on Saturdays. Exceptions to the Los Angeles Noise Ordinance pursuant to LAMC Section 41.40 shall be sought and received to allow a continuous concrete pour, hauling of excavated material and associated activities, and labor starting time/use of non-mechanical hand tools, as necessary. Deliveries would be possible before 7:00 A.M. weekdays, before 8:00 A.M. on Saturdays, and on Sundays.

Enforcement Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report by Contractor

Mitigation Measure K-2: Schedule noisy construction activities in shifts to avoid high noise levels caused by operating several pieces of equipment simultaneously.

Enforcement Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report by Contractor

Mitigation Measure K-3: Require the Project contractor to use power construction equipment with state-of the art noise shield and muffling devices.

Enforcement Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report by Contractor

Mitigation Measure K-4: Require that an acoustical study be performed and that appropriate noise reduction features are included in project design to ensure acceptable interior noise levels.

Enforcement Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of acoustical study and confirmation of incorporation of noise reduction features in plans prior to issuance of building permit

Mitigation Measure K-5: Active construction sites within 300 feet of on-site ground-level areas frequently used by hotel guests and residents shall be acoustically screened with a temporary 8-foot, ½-inch-thick plywood fence around the

construction zone, to the extent feasible. The plywood fence will have an approximate sound transmission classification level of 18.

Enforcement Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Agency: CRA; Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during construction

Action Indicating Compliance with Mitigation Measure(s): Monthly compliance report by Contractor

Mitigation Measure K-6: All persons or entities purchasing, leasing, or renting residential land or property within the development shall be required to sign an "acknowledgement covenant" indicating that subsequent phases of the project will involve periodically high construction noise levels, that such noise levels within building interiors will generally be attenuated to acceptable levels, and that outdoor areas will be subject to periodically high levels of construction noise. In addition, the acknowledgement covenant shall waive the right or persons or entities to take legal action in connection with construction noise.

Enforcement Agency: CRA; Los Angeles Department of Building and Permit

Monitoring Agency: CRA; Los Angeles Department of Building and Permit

Monitoring Phase: Pre-Construction

Monitoring Frequency: Ongoing prior to construction

Action Indicating Compliance with Mitigation Measure(s): Approval of acoustical study and confirmation of incorporation of noise reduction features in plans prior to issuance of building permit

Project Requirements

- Construct all exterior walls, floor-ceiling assemblies, and windows with double-pane glass or an equivalent and in a manner to provide an airborne sound insulation system achieving a Sound Transmission Class of 50 (45 if field tested) as defined in the UBC Standard No. 35-1, 1982 edition. Advisory Agency sign-off will be required prior to obtaining a building permit.
- Compliance with the provisions of the Los Angeles Noise Ordinance (LAMC, Chapter XI, Articles 1 through 6); and
- Adherence to the guidelines set forth in the Noise Element of the City of Los Angeles General Plan.

Project Features

- The continuous concrete pour shall occur on a weekend rather than a weekday.

L. Population/housing

Mitigation Measures

Mitigation Measure L-1: To the extent that there is a transfer of floor area ratio (TFAR), a portion of the money from the sale of TFAR would be put in a housing trust fund. Payment of Replacement Housing Plan fees governing replacement housing for the project site shall occur.

Enforcement Agency: CRA

Monitoring Agency: CRA

Monitoring Phase: Post-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of TFAR sale

Project Requirements

None.

Project Features

None.

M. Public Services

Mitigation Measures

Fire Protection Services

Mitigation Measure M-1: The applicant shall consult with the LAFD during project design and prior to initial occupancy of the building to discuss such features as emergency access to the site.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-construction; Post-Construction

Monitoring Frequency: Once at pre-construction and once at post-construction

Action Indicating Compliance with Mitigation Measure(s): Approval of emergency access and fire prevention features prior to approval of building permit or issuance of Certificate of Occupancy as applies

Mitigation Measure M-2: Water system in the Project area shall be upgraded to provide a fire flow of 6,000 gpm with a residual pressure of 20 psi.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department; Los Angeles Department of Water and Power

Monitoring Phase: Post-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of water system and fire flows prior to issuance of building permit or issuance of Certificate of Occupancy as applies

Mitigation Measure M-3: Adequate off-site public and on-site private fire hydrants may be required. Their number and location are to be determined after the LAFD's review of the plot plan.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of fire hydrant numbers and locations prior to issuance of building permit

Mitigation Measure M-4: Submit plot plans that show the access road and the turning area for LAFD approval.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of circulation and access requirements by LAFD following plot plan review and prior to issuance of building permit

Mitigation Measure M-5: Private development shall conform to the standard street dimensions shown on Department of Public Works Standard Plan D-22549.

Enforcement Agency: Los Angeles Fire Department; Los Angeles Department of Public Works

Monitoring Agency: Los Angeles Fire Department; Los Angeles Department of Public Works

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of street dimensions prior to issuance of building permit

Mitigation Measure M-6: Private roadings for general access use and fire lanes shall not have a width of less than 20 feet clear to the sky.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of street dimensions prior to issuance of building permit

Mitigation Measure M-7: All access roads, including fire lanes, shall be maintained in an unobstructed manner. Removal of obstructions shall be at the owner's expense. The entrance to all required fire lanes or required private driveways shall be posted with a sign no less than three square feet in area, in accordance with Section 57.09.05 of the Los Angeles Municipal Code.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Operation

Monitoring Frequency: Ongoing

Action Indicating Compliance with Mitigation Measure(s): Review of signage prior to issuance of Certificate of Occupancy and periodic monitoring of access roads and fire lanes by LAFD

Mitigation Measure M-8: Fire lane width shall not be less than 20 feet. When a fire lane must accommodate the operation of LAFD aerial ladder apparatus or where fire hydrants are installed, those lane segments shall not be less than 28 feet in width.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of street dimensions prior to issuance of building permit

Mitigation Measure M-9: No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): LAFD approval of building setbacks from roadways prior to issuance of building permit

Mitigation Measure M-10: Where access for a given development requires accommodation of LAFD apparatus, overhead clearance shall not be less than 14 feet.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of overhead clearance for LAFD apparatus prior to issuance of building permit

Mitigation Measure M-11: Access for LAFD apparatus and personnel to and into all structures shall be required.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of access for fire apparatus and personnel prior to issuance of building permit

Mitigation Measure M-12: Where fire apparatus will be driven onto the road level surface of the subterranean parking structure, that structure shall be engineered to withstand a bearing pressure of 8,600 pounds per square foot.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Approval of final plans for roadway engineering requirements prior to issuance of building permit

Mitigation Measure M-13: The proposed project shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles (C.P.C. 19708)

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Confirmation of compliance with applicable fire prevention related codes, ordinances and guidelines prior to issuance of building permits or a Certificate of Occupancy as applicable.

Mitigation Measure M-14: The applicant shall consult with the Fire Department during project design about access to each of the sites in an emergency. Water system shall be upgraded, if necessary. Site shall conform to City requirements.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Completion of consultation meeting(s) with LAFD regarding access and water system requirements prior to during project design

Mitigation Measure M-15: Definitive plans and specifications shall be submitted to the Los Angeles Fire Department and requirements for necessary permits satisfied prior to commencement of any portion of the proposed project.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Completion of consultation meeting(s) with LAFD regarding access and water system requirements prior to during project design

Police Protection Services

Mitigation Measure M-16: The Security Master Plan for the Project (Appendix B of the DEIR), has been submitted to LAPD for review and approval. The LAPD will consider the Security Master Plan prior to the issuance of a certificate of occupancy for the first Development Phase. The primary goal and focus of the plan is to reduce the potential for on-site crime and the need for LAPD services. Prior to each subsequent Development Phase the Security Master Plan shall be modified and updated as needed based on more detailed plans and submitted to LAPD for approval in order to achieve this goal. The plan dictates the security services and features to be implemented, as determined in consultation with the LAPD. Features of the Security Master Plan shall include but not be limited to the following features:

a. Provision of an on-site security force by phase with ten or more personnel per shift at buildout to monitor and patrol individual buildings, the parking structure and public and private open space areas. During operational hours, security officers shall perform pedestrian, vehicular, and/or bicycle patrols;

b. Install closed-circuit television systems (CCTV) where appropriate throughout the Project site to help deter crime, record criminal behavior, and enable LAPD to respond in real time to incidents. CCTV will cover at a minimum all external doors, public lobbies, elevators, walkways and paths to buildings from the parking garage, public transportation, sidewalks, and to refuse and back of house service areas;

c. A security monitoring facility shall be provided in each building to monitor CCTV cameras and as a location where alarms are initially transmitted to site security personnel or LAPD if appropriate. The monitoring facilities will be located at the security desks or central room within the residential, hotel, and retail components of the Project;

d. Security features shall be incorporated into the design of proposed parking facilities, including controlled access and CCTV to monitor all entrances and exits, provision of multiple emergency call locations visible from parking areas, effective “wayfinding” for motorists and pedestrians, uniform and ample lighting to avoid “spotters” for parking areas, and provision of security personnel to patrol the garage, ensuring sufficient parking on-site for building employees, residents and anticipated patrons and visitors;

e. Security lighting incorporating good illumination and minimum dead space in the design of entryways, seating areas, lobbies, elevators, service areas, and parking areas to eliminate potential areas of

concealment. Security lighting shall incorporate full cutoff fixtures which minimize glare from the light source and provide light downward and inward to structures to maximize visibility;

f. Provision of lockable doors at appropriate Project entryways, retail stores, and restaurants with programmable controlled access card readers as appropriate;

g. Installation of alarms at appropriate Project entryways and ancillary commercial structures;

h. All businesses desiring to sell or allow consumption of alcoholic beverages are subject to the issuance of a Conditional Use Permit by the City;

i. Accessibility for emergency service personnel and vehicles into each structure, and detailed diagram(s) of the Project site, including access routes, unit numbers, and any information that would facilitate police response shall be provided to the Central Area Commanding Officer.

j. In addition, security procedures regarding initial response, investigation, detainment of crime suspects, LAPD notification, coordination with DCBID security patrols, and general public assistance shall be carried out pursuant to the Security Master Plan. The plan shall be subject to review by the LAPD, and any provisions pertaining to access would be subject to approval by the City of Los Angeles Department of Transportation.

Enforcement Agency: Los Angeles Police Department

Monitoring Agency: Los Angeles Police Department

Monitoring Phase: Post-Construction

Monitoring Frequency: Prior to each subsequent Development Phase

Action Indicating Compliance with Mitigation Measure(s): Review and approval of the Security Master Plan by LAPD prior to issuance of a Certificate of Occupancy for each Development Phase

Mitigation Measure M-17: Prior to the start of each Development Phase, the Applicant shall submit plot plans for all proposed development to the Los Angeles Police Department's Crime Prevention Section for review and comment. Security features subsequently recommended by the LAPD shall be implemented by the Applicant to the extent feasible.

Enforcement Agency: Los Angeles Police Department

Monitoring Agency: Los Angeles Police Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Prior to the start of each Development Phase

Action Indicating Compliance with Mitigation Measure(s): Review and comment on plot plans prior to the start of each Development Phase by LAPD and incorporation of security features recommended by LAPD to the extent feasible prior to the issuance of building permits

Mitigation Measure M-18: At the completion of each Development Phase, the Applicant shall file as-built building plans with the LAPD Central Area Commanding Officer. Plans shall include access routes, floor plans, and any additional information that might facilitate prompt and efficient police response to the satisfaction of LAPD.

Enforcement Agency: Los Angeles Police Department

Monitoring Agency: Los Angeles Police Department

Monitoring Phase: Post-Construction

Monitoring Frequency: At the completion of each Development Phase

Action Indicating Compliance with Mitigation Measure(s): Filing of as-built building plans with the LAPD Central Area Commanding Officer at the completion of each Development Phase prior to issuance of Certificate of Occupancy

Mitigation Measure M-19: A landscape plan shall be prepared for the Project by a licensed landscape architect, licensed architect or landscape contractor. In addition to satisfying the requirements of the Planning Department, the plan shall achieve a performance standard for security of supporting natural surveillance and avoiding creation of potential hiding places for intruders or loiterers, particularly along walkways, close to parking structures, and where building doors or windows may be obscured. The landscape plan shall consider use of plant materials, such as bougainvillea and other prickly plants, to deter unauthorized access to buildings or hiding places. Benches and seating shall be designed to discourage their use for sleeping. LAPD shall review the landscape plan relative to the security performance standard, and revisions to the plan shall be made and subject to LAPD approval prior to the start of each Development Phase.

Enforcement Agency: Los Angeles Police Department

Monitoring Agency: Los Angeles Police Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Prior to the start of each Development Phase

Action Indicating Compliance with Mitigation Measure(s): Review and approval of landscape plan, relative to security features, by LAPD prior to the issuance of a building permit for each Development Phase

Mitigation Measure M-20: A lighting plan shall be submitted to LAPD prior to the start of each Development Phase. In addition to demonstrating compliance with

Los Angeles Municipal Code (LAMC), Chapter 1, Section 1.21 and Section 12.08, the lighting plan shall identify security related lighting on the Project site, including lighting in parking garages and common open space areas. The performance standard to be achieved for security lighting is the provision of good illumination throughout the site to eliminate dead space and areas of concealment in order to deter intruders and loiterers, and reduce the potential for crime. In addition to the buildings, the following areas shall be well lit: main site access, walkways, plaza areas, parking and loading areas, on-site roadways, refuse rooms/areas, public spaces and associated areas, and secluded areas where individuals may be tempted to loiter (such as load docks, side stairwells, and emergency exits). LAPD shall review the security lighting features of the lighting plan relative to the performance standard, and revisions to the lighting plan shall be made and subject to LAPD approval prior to the start of each Development Phase.

Enforcement Agency: Los Angeles Police Department

Monitoring Agency: Los Angeles Police Department

Monitoring Phase: Pre-Construction

Monitoring Frequency: Prior to the start of each Development Phase

Action Indicating Compliance with Mitigation Measure(s): Review and approval of lighting plan, relative to security lighting, by LAPD prior to the issuance of building permits for each Development Phase

Project Requirements

- A Fire Department permit is required on all private fire hydrant systems.
- Suitable financial arrangements with the Department of Water and Power will indicate concurrence with the installation location of public fire hydrants.
- All hydrants installations and enlargements are to be completed prior to any street paving required for the project.
- Submittal and approval of site plans to LAPD to ensure adequate and safe design of proposed development;
- Payment of school fees pursuant to Government Code Section 65995; and
- Payment of park impact fees or provision of park space pursuant to the Los Angeles Municipal Code (LAMC), Section 17.12.

Project Features

- The Project would implement a state-of-the-art security system that would include, among other features, private security guards, electronic surveillance equipment, and electronic card-keys for access to the building and parking structure.

N. Recreation

Mitigation Measures

See Public Services, above.

Project Requirements

See Public Services, above.

Project Features

See Public Services, above.

O. Transportation/Traffic

Mitigation Measures

Mitigation Measure O-1: If office uses are proposed in the future, implement a comprehensive Transportation Demand Management (TDM)/Transportation Systems Management (TSM) for the office component of the project that would be designed to primarily reduce and manage employee commute-related trips in private vehicles (applies to office uses).

Enforcement Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Phase: Post-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Mitigation Measure O-2: Restripe James M. Wood Boulevard to provide one left-turn lane, one left-through shared lane, one through lane, one through/right shared lane and one right-turn lane in the eastbound direction at Figueroa Street. (Applicable only with the reconfiguration of Figueroa Street).

Enforcement Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Phase: Post-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Mitigation Measure O-3: Dedicate and widen Francisco Street to a roadway width that also accommodates the future installation of northbound triple left-turn lanes approaching Eighth Street as follows:

a. Provide a 4-foot dedication and widening along the west side of Francisco Street between 8th Street and the approximate Phase 1/Phase 2 boundary driveway nearest 8th Place, on the opposite side of the street, for a half-width right-of-way and half-width roadway of 34 feet and 24 feet, respectively. *(Upon BOE confirmation)*

b. Provide a 4-foot dedication and widening along the west side of Francisco Street between the approximate Phase 1/Phase 2 boundary and James M. Wood Boulevard, for a half-width right-of-way and half-width roadway of 34 feet and 24 feet, respectively.

c. Restripe Francisco Street to provide two northbound lanes that become dual-left turn lanes approaching 8th Street; and left-turn channelization to accommodate left turns into the project driveways and onto 8th Place.

Enforcement Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Phase: Post-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Mitigation Measure O-4: Provide a 5-foot dedication along the south side of 8th Street between the westerly side boundary and Francisco Street per the Modified One-Way Secondary Highway Standards in the Downtown Street Standards.

Enforcement Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Phase: Post-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Mitigation Measure O-5: Provide a variable strip of land dedication up to approximately 15 feet wide along the north side of James M. Wood

Boulevard between the Francisco Street centerline and a perpendicular distance approximately 175 feet westerly to accommodate the widening of the Harbor Freeway 9th Street Off-Ramp at this location. The off-ramp widening is being constructed as part of a state funded State Highway Operation and Protection Program (SHOPP 2004, PPNO 3344) highway safety and mobility improvement project for the Harbor Freeway in the Downtown area. This condition has been satisfied by the dedication of 1,169 square feet of land to the State of California per Grant Deed recorded November 19, 2009 as Instrument No. 20091752719.

Enforcement Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Agency: Los Angeles Department of Transportation; Los Angeles Department of Public Works

Monitoring Phase: Post-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Project Requirements

- Submittal of project plans for LADOT review and approval
- The project shall obtain appropriate City permits for each construction phase. Permits would include street use permits (including traffic control plans) for any work to be conducted in City right of way and haul route permits for the import and export of construction-related materials.
- FAA review of project plans with respect to building markings and rooftop lighting
- Compliance with City Building and Safety Code and LAFD requirements for design of roadway in other access related improvements
- City Bureau of Engineering B-Permit review of roadway improvements
- Compliance with LAMC minimum parking requirements

Project Features

- Information regarding the routes and times for transit services shall be readily available on-site (e.g., at the hotel lobby area, retail establishments, etc.); and
- Use of alternative transportation shall be highly encouraged.

P. Utilities/Service Systems

Mitigation Measures

None.

Project Requirements

- Compliance with the applicable provisions of Ordinance No. 162,532, which provides for the reduction of water consumption levels, thereby restricting wastewater flows, (i.e., water saving devices to be installed shall include low flow toilets and plumbing fixtures that prevent water loss);
- Compliance with the City of Public Works standards for sewer line improvements; and
- That the sewerage facilities charge be deposited prior to recordation of the final map over all of the tract in conformance with Section 64.11.2 of the Municipal Code.
- That satisfactory arrangements be made with both the Water System and Power System of the Department of Water and Power with respect to water mains, fire hydrants, service connections and public utility easements.
- Construct on-site sewers to serve the tract as determined by the City Engineer.
- That drainage matters be taken care of to the satisfaction of the City Engineer
- Construct any necessary drainage facilities
- Drainage facilities required under Condition No. S-3(b) will include the reconstruction of the existing catch basins and connector pipes along 8th Street, 9th Street and Francisco Street in connection with the street widenings required herein all satisfactory to the City Engineer
- Consistency with the City's SRRE, CiSWMPPP, Framework Element, or the Curbside Recycling Program.

Project Features

Not applicable.

Q. Other Topics Addressed

Wind

Mitigation Measures

Mitigation Measure Q-1: The project sponsor would conduct a wind tunnel test for all phases prior to receiving a building permit. Results of the wind tunnel test would be submitted to the CRA/LA. The wind tunnel test would determine likely ground level wind shear effects of the project. Based on the wind comfort criteria developed by Rowan Williams Davies & Irwin, Inc. in their Metropolis Los Angeles, Pedestrian Wind Review (May 29, 2014), the results of the wind tunnel test shall ensure that wind conditions are considered suitable for sitting, standing, strolling or walking for at least four out of five days (80% of the time) and wind conditions shall not affect a person's balance more than 0.1% of the time. The project sponsor will implement recommendations from the wind tunnel test to reduce winds to meet the criteria.

Enforcement Agency: Los Angeles Department of Building and Safety; CRA

Monitoring Agency: Los Angeles Department of Building and Safety; CRA

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Completion of wind tunnel test to satisfaction of CRA prior to issuance of building permit

Mitigation Measure Q-2: Based on the screening level evaluation provided in the Pedestrian Wind Review study, and subject to further refinement following the wind tunnel test, components that may need to be incorporated into the project to mitigate wind impacts based on the criteria set forth in Mitigation Measure Q-1 are likely to include wind screens, landscaping, canopies, and porous parapets. In addition, street furniture, including street trees, newspaper/flower kiosks, etc. would break up ground level winds. Recommendations from the wind tunnel study to achieve the criteria shall be incorporated into the project.

Enforcement Agency: Los Angeles Department of Building and Safety;

Monitoring Agency: Los Angeles Department of Building and Safety;

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Project Requirements

None

Project Features

None

Energy

Mitigation Measures

Mitigation Measure Q-3: In the course of the design and development phases, the project sponsor would make every reasonable effort to conserve energy used for heating and cooling the buildings over the lifetime of the project. The project would comply with at least the minimum requirements of the State Building Energy Efficiency Standards (Title 24) and, to the extent feasible, would seek to exceed such requirements and use state-of-the-art energy conscious design practices that achieve energy efficiency and use of on-site energy sources.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Pre-Construction; Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Mitigation Measure Q-4: The project sponsor would prepare and submit an Energy Conservation Plan, to include the following elements:

- Measures to meet state Title 24 requirements.
- Additional measures, including but not limited to, building placement and orientation, architectural features, open spaces, landscaping, mechanical, and operation measures.
- Estimates (percent) of energy reduction to be realized.

Enforcement Agency: Los Angeles Department of Building and Safety; CRA

Monitoring Agency: Los Angeles Department of Building and Safety; CRA

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of building permit

Mitigation Measure Q-5: The project sponsor will submit regular status reports, as requested by Agency staff, on the implementation of the Energy Conservation Plan.

Enforcement Agency: Los Angeles Department of Building and Safety; CRA

Monitoring Agency: Los Angeles Department of Building and Safety; CRA

Monitoring Phase: Operation

Monitoring Frequency: Ongoing

Action Indicating Compliance with Mitigation Measure(s): CRA sign-off of reports

Mitigation Measure Q-6: The following mitigation measures could be adopted singly or in combination to mitigate energy impacts identified in this report.

- Ensure that buildings are well-sealed to prevent outside air from infiltrating and increasing interior space conditioning loads. Design building entrances with vestibules to restrict infiltration of unconditioned air and exfiltration of conditioned air.
- Finish exterior walls with light-colored materials with high emissivity characteristics to reduce cooling loads. Finish interior walls with light-

colored materials to reflect more light and thus increase lighting efficiency.

- Design window systems or use other means to reduce thermal gain and loss and thus cooling loads during warm weather and heating loads during cool weather.
- If office uses are proposed in the future, limit installed office lighting loads to an average of about 2.3 watts/sq. ft. of conditioned floor area.
- Install fluorescent and high-intensity-discharge (HID) lamps, which give the highest light output per watt of electricity consumed, wherever possible.
- Install high-efficiency lamps for all street and parking lot lighting to reduce electricity consumption.
- For 160 volts, three-phase, distribute electricity within the project at 480/277 volts, three-phase, and step down where necessary for 110-volt outlets using dry transformers. Installed lighting systems could operate at 277 volts. These measures would reduce distribution losses and increase the efficiency of the lighting systems.
- Install occupant-controlled light switches and thermostats to permit individual adjustment of lighting, heating, and cooling, to avoid unnecessary energy consumption.
- Control mechanical systems (HVAC and lighting) in the buildings with time clocks to prevent accidental or inappropriate conditioning or lighting of unoccupied space. Computer-control the HVAC systems for maximum efficiency.
- Recycle lighting system heat, for space heating during cool weather. Exhaust lighting system heat from the buildings, via ceiling plenums, to reduce cooling loads in warm weather.
- Install low- and medium-static-pressure terminal units and ductwork to reduce energy consumption by air distribution systems.
- Cascade ventilation air from high-priority areas to low-priority areas before being exhausted, thereby decreasing the volume of ventilation air required. For example, air could be cascaded from occupied space to corridors to mechanical spaces before being exhausted.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of first Certificate of Occupancy

Project Requirements

Compliance with Title 24 requirements.

Project Features

None.

Telephone Service

Mitigation Measures

Mitigation Measure Q-7: The project sponsor would consult with the Building Engineering Department of Pacific Bell *[now SBC Communications, Inc.]* to determine the need for street excavation for cable installation.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once

Action Indicating Compliance with Mitigation Measure(s): Issuance of building permit

Project Requirements

None.

Project Features

None.

Appendix C
Visual Simulations

Appendix C
Visual Simulations

Metropolis Visual Simulations

Simulations Report

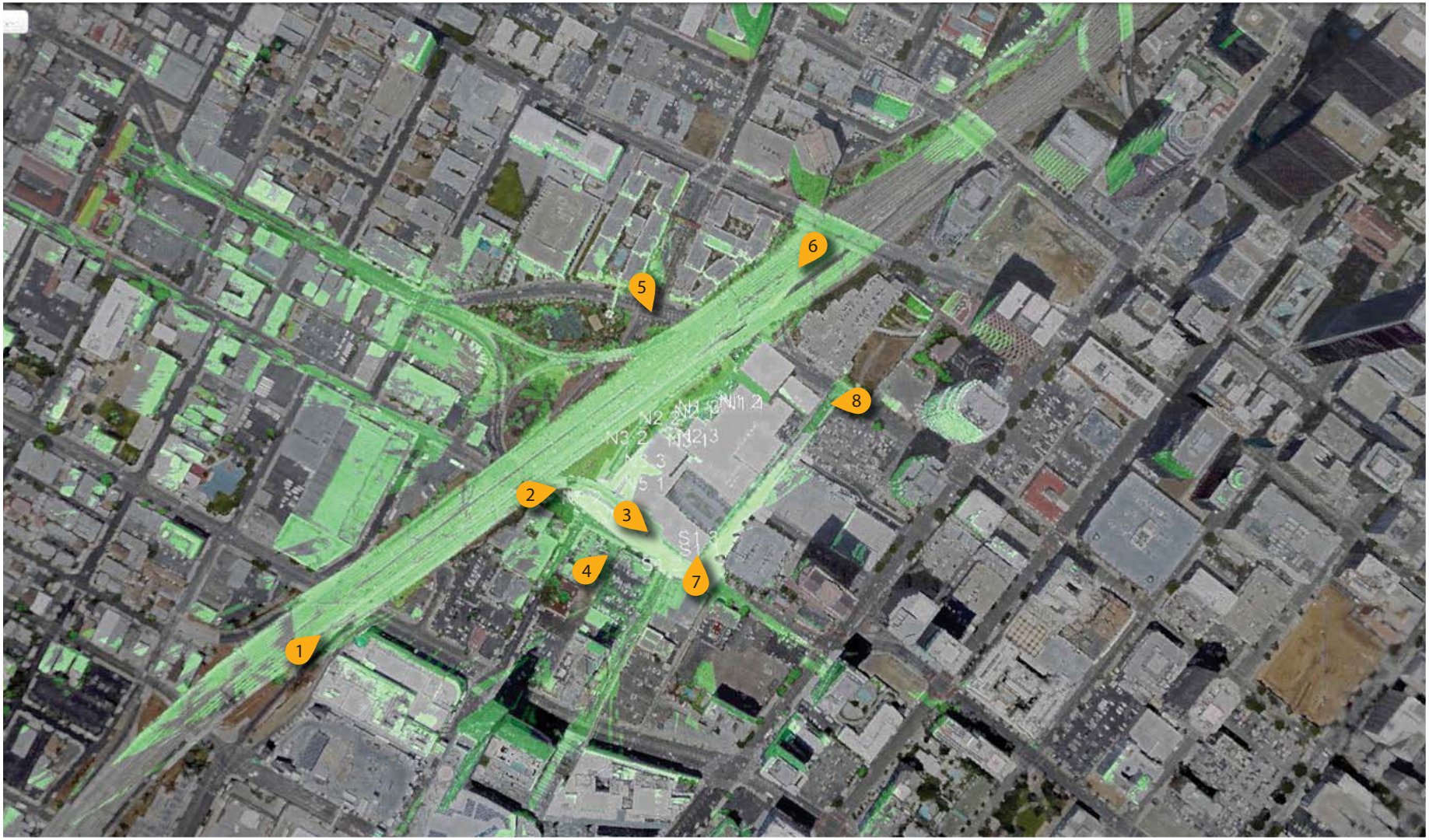
KTU+A Planning + Landscape Architecture

3916 Normal Street, San Diego CA 92103

t. 619.294.4477 - www.ktua.com

CONTACT - MIKE SINGLETON

26 September 2016



KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

1. 110 Freeway NB

Existing

Proposed

KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

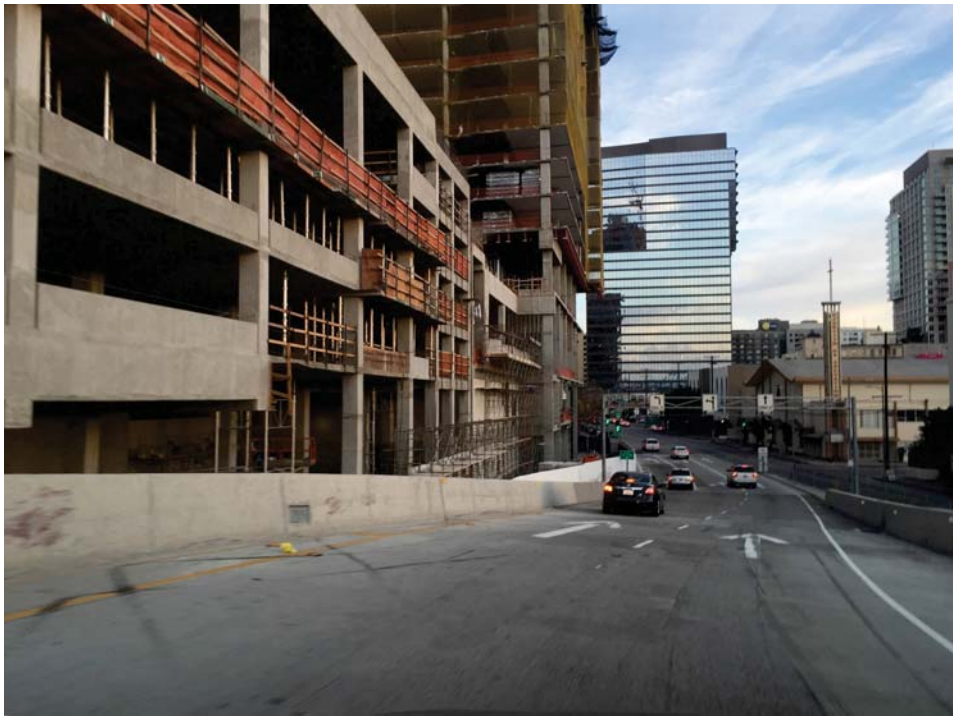
2. James M. Wood Offramp - Start

Existing

Proposed

KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

3. James M. Wood Offramp - Midway



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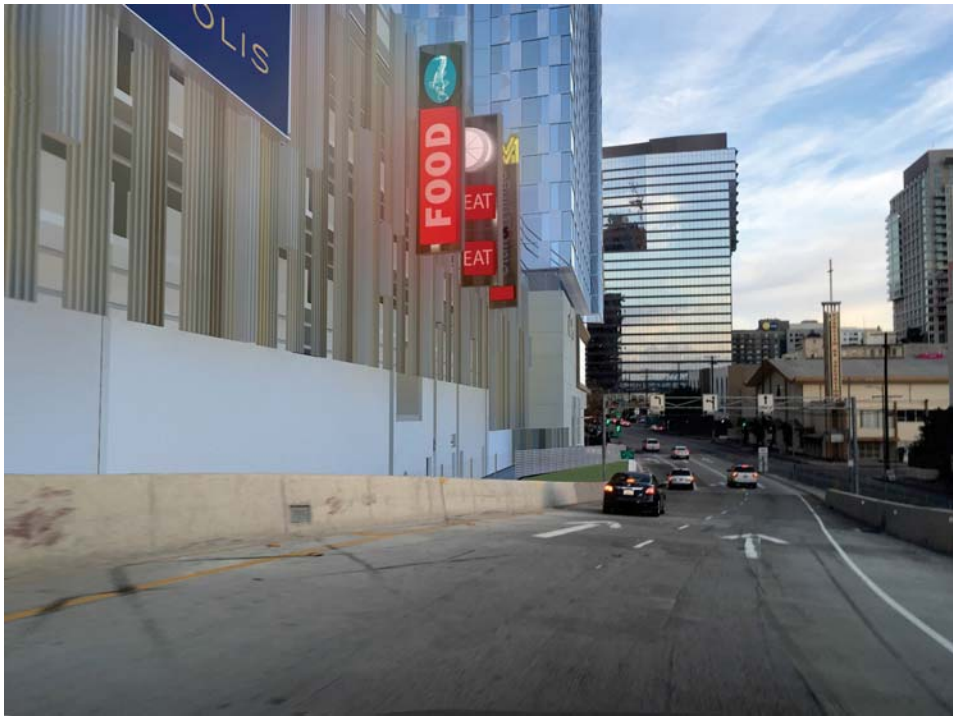

Proposed

KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

4. Georgia St. / Nearby Residential Building

Existing

Proposed

KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

5. Medici Towers - Approx. 6th Floor

Existing

Proposed

KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

6. 110 Freeway SB

Existing

Proposed

KTU+A Planning + Landscape Architecture
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t. 619.294.4477 - www.ktua.com

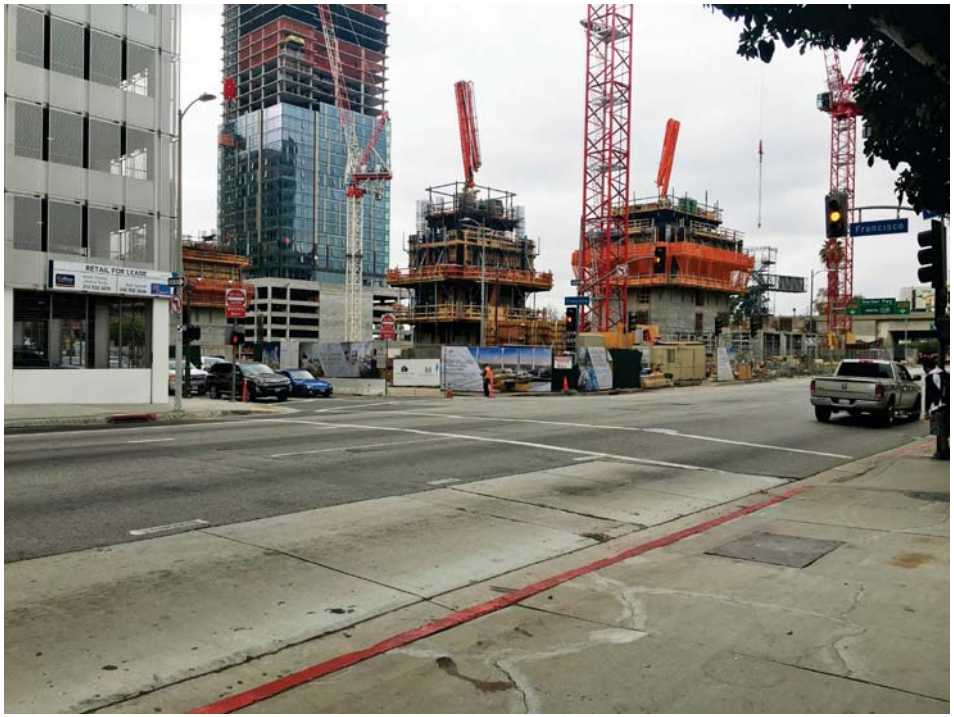
7. Francisco Looking North

Existing

Proposed

KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

8. Francisco Looking South



Existing

Proposed

KTU+A Planning + Landscape Architecture
3916 Normal Street, San Diego CA 92103
t. 619.294.4477 - www.ktua.com

Appendix D
Lighting Technical Report

ESA PCR

LIGHTING TECHNICAL REPORT

for the

METROPOLIS SIGN DISTRICT PROJECT

Los Angeles, California

Francis Krahe & Associates, Inc.

Architectural Lighting Design

304 South Broadway, Suite 500

Los Angeles, California 90013

Phone 213.617.0477

Fax 213.617.0482

February 20, 2018

Contents

List of Tables

List of Figures

1. Introduction

1.1 Summary of Study Organization

This Lighting Technical Report (Report) by Francis Krahe & Associate Inc. analyzes illuminated signs proposed to be installed within the Metropolis Development, which is a previously approved development project located on an approximately 6.3 acre site. The Metropolis Development is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north in downtown Los Angeles, California (Project Site). The Metropolis Project is a two-phased development. Phase 1 includes an 18-story, 350-room hotel building with up to 4,527 square feet of commercial uses, a 38-story residential building with up to 310-residential condominium units and up to 2,617 square feet of commercial uses and a motor court serving both buildings fronting along Francisco Street. Phase 2 includes 40-story and a 56-story residential buildings containing up to 1,250 residential condominium units in total and up to 67,107 square feet of commercial uses. The Metropolis Development also includes an illuminated public art installation located on the Project Site facing S. Francisco Street.[1] Construction of Phase 1 of the Metropolis Development has been completed and Phase 2 is currently under construction.

This Report defines the existing lighting conditions within and surrounding the Project Site, reviews the applicable lighting metrics, and models the proposed illuminated signs within the Metropolis Development to evaluate the potential impacts of the signs on surrounding properties. The analysis in this Report is based on the proposed signage which would be authorized by the Applicant's requested Supplemental Use District (Sign District), if that Sign District were adopted by the City pursuant to Section 13.11 of the Los Angeles Municipal Code (LAMC). The Applicant has proposed regulations for the requested Sign District which are described in the Proposed Metropolis Sign District Project Description (Project Description) attached as Appendix A of this Report. A conceptual implementation of the proposed signs is set forth in the Conceptual Sign Plan dated September 29, 2017 (the "Conceptual Sign Plan"), which consists of the Conceptual Sign District Drawings (which are on file with the City) and the Conceptual Sign District Matrix (which is included in this Report as Appendix B-1[2]).

The methods of analysis utilized for this evaluation are based upon the recommended practices established by the Illuminating Engineering Society of North America (IESNA) for the practice of illumination engineering design and application as well as measurement of light sources and illuminated surfaces.

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[1] *The public art has been deemed by the Department of Cultural Affairs as a Public Art Installation under the Mural Ordinance No. 182,706, and is not considered a sign.*

[2] *As explained further in Appendix B-1, the sign dimensions utilized in this Report's light trespass analysis vary slightly from the dimensions of the signs contained in the Conceptual Sign District Matrix, (included in this Report as Appendix B-2), but this minor variation does not impact the results of that analysis.*

1.2 Project Description

The Project analyzed in this Report consists of the illuminated that would (if adopted by the City) be authorized by the requested Sign District, as described in Appendix A, including the individual signs shown on the Conceptual Sign Plan (the "Project").[3] The Sign District would specify the authorized sign types, operating standards and requirements for signs within the Sign District. Sign types may include, without limitation: wall signs, window signs, monument signs, canopy signs, hanging signs, electronic message display signs, full motion electronic message display signs, full motion electronic message display projecting signs, multi-tenant wall signs, multi-tenant window signs, multi-tenant projecting signs, multi-tenant pillar signs, and tall building signs. Messages within the signs may be either on-site or off-site. The Conceptual Sign Plan represents a potential implementation of signs that would be permitted by the proposed Sign District if it were adopted by the City.

As proposed by the Applicant, the requested Sign District would provide that Project illuminated signs comply with the following requirements to regulate light trespass and glare:

- Externally illuminated signs will incorporate design elements to limit the direct view of the light source surface at all exterior light fixtures to ensure that the light source cannot be seen from adjacent residential properties or the public right-of-way. Such design elements could include one or more of the following: use of light fixtures that comply with the ratings specified in CALGreen Table 5.106B; use of light fixtures with a focused output where the output angles greater than 20 degrees from beam centerline do not exceed 500 candelas; glare shields and louvers attached to the front face of the light fixture; and/or architectural screens to conceal the direct view of the light fixtures at the center of adjacent streets at the Project Plan boundary to the north, south, east, and west.
- Illuminance from Signs shall not exceed 32.3 lux (3 footcandles) at the property line of the nearest residentially zoned property outside the Sign District.
- All light sources, including illuminated signage, would comply with CALGreen (Part 11 of Title 24, California Code of Regulations).
- Internally illuminated signs will not exceed 600 cd/m^2 luminance at night, which includes the period from 20 minutes prior to sunset until 20 minutes after sunrise, and 6000 cd/m^2 during day time hours. All internally illuminated Signs shall transition smoothly at a consistent rate from the daytime maximum luminance to the permitted maximum nighttime luminance, beginning 45 minutes prior to sunset and concluding no later than 20 minutes prior to sunset, and from the permitted nighttime maximum luminance to the daytime luminance beginning no earlier than 20 minutes after sunrise and concluding no earlier than 45 minutes after sunrise.
- Illuminated signs that have the potential to exceed 600 cd/m^2 will include an electronic control mechanism to reduce sign luminance (at a rate of no more than 0.25% per second) to 600 cd/m^2 at any time when ambient sunlight is less than 100 footcandles.
- Illuminated Signs and/or luminaires intended to illuminate Signs shall be shielded, reduced in intensity, or otherwise protected from view such that the brightness of a light source within 10 degrees from a driver's normal line of sight shall not be more than 1,000 times the minimum measured brightness in the driver's field of view, except when minimum values are less than 10 footlamberts (fL). If minimum values are below 10 fL, the

[3] *See Note 2, above.*

source brightness shall not exceed 500 fL plus 100 times the angle, in degrees, between the driver's line of sight and the light source.

As proposed by the Applicant, the relevant objectives of the requested Sign District are to:

- enhance the land uses and urban design objectives in the Community Plan and the Design Project Area;
- provide unique and vibrant signage that will inform and attract visitors regarding the Metropolis Development's businesses and offerings;
- encourage creative, well-designed Signs that contribute in a positive way to the visual environment of the automobile gateway to Downtown Los Angeles, the Avenue of the Angels, the Design Project Area and the Community Plan area;
- ensure that Signs visible from State Route 110 are aesthetically compatible with such highway and do not violate State or Federal laws, regulations and agreements concerning Signs visible from such highway; and,
- coordinate the location and display of signs so as to enhance the pedestrian realm, minimize potential traffic hazards, and protect public safety.

The Project that is being considered within this Report is only the Project signs and not the whole building development (which was previously approved by the City).

1.3 Summary of Methodology

Light exposure within this Report is evaluated based on the following technical criteria:

- Light Trespass: the light that falls on a property but originates on an adjacent property. Light trespass is expressed in terms of *illuminance.*[4]
- Glare/Contrast: According to the IESNA 10th Edition Handbook "glare occurs in two ways: when either the *luminance*[5] is too high, or luminance ratios are too high"[6]. The evaluation of too high luminance is determined by the maximum luminance of the light source, and for this Project is determined by the maximum sign luminance. The second factor, "luminance ratios too high", is evaluated by the ratio of the sign luminance as compared to the luminance within the field of view visible at an observer position. This ratio is referred to as Contrast, and is determined by the variation of luminance. For residential occupancies at night, "High," "Medium," and "Low" contrast are terms used to describe effect of the contrast ratios (the ratio of peak measured luminance to the

[4] *Illuminance measures the amount of illumination (i.e., luminous flux) that falls on a given area from a light source. Luminous flux is defined as the mean value of total candelas produced by a light source, and describes the total amount of light emitted by a light source. The unit for measuring luminous flux is a lumen. Illuminance is measured in foot-candles (lumen per square foot, or the light energy within one square foot surface). Illuminance decreases with the square of the distance from the light source.*

[5] *Luminance describes the brightness of an illuminated surface. Luminance is a measure of reflected light from a specific surface in a specific direction over a standard area. It is measured in footlamberts (candelas per square foot). A candela is defined as a measure of light energy from a source at a specific standard angle and distance. Metric equivalent for Luminance is candelas per square meter, or nits.*

[6] *IESNA 10th Edition, Section 4.10 Glare, page 4.25.*

average within a field of view) of greater than 30:1, between 10:1 and 30:1, and below 10:1, respectively. Contrast ratios above 30:1 are generally uncomfortable for the human eye to perceive[7] and may present an unacceptable condition for relaxation and enjoyment of a residence. For driver's visibility, the range of acceptable glare is higher, due to the use of head lights for traffic visibility and the range of variations in background luminance. For driver's visibility the glare threshold is defined by the California Vehicle code as a maximum luminance value relative to the drivers' field of vision.

2. Glossary of Lighting Terminology

Discussions of lighting issues include precise definitions, descriptions or terminology of the specific lighting technical parameters. The following glossary summarizes explanations of the technical lighting terms utilized within the Study and the related practice standards to facilitate discussion of these issues. The following technical terms are presented in this Study.

Brightness: The magnitude of sensation that results from viewing surfaces from which light comes to the eye. This sensation is determined partly by the measurable luminance of the source and partly by the conditions of observation (Context), such as the state of adaptation of the eye. For example, very bright lamps at night appear dim during the day, because the eye adapts to the higher brightness of daylight.

BUG Rating: A luminaire classification system established in *IES TM-15-11*, BUG Ratings Addendum that provides for uniform assessment of the directional characteristics of illumination for exterior area lighting. BUG is an acronym composed of Backlight, Uplight, and Glare. BUG ratings are based on a zonal lumen calculations for secondary solid angles defined in *IES TM-15-11*.

Candela: Measure of light energy from a source at a specific standard angle and distance. Candela (cd) is a convenient measure to evaluate output of light from a lamp or light fixture in terms of both the intensity of light and the direction of travel of the light energy away from the source.

Contrast: Calculated evaluation of high, medium and low contrast of visible light sources or surfaces within the Project Site by a ratio of luminance values. Contrast is the ratio of one surface luminance to a second surface luminance or to the field of view. Contrast values exceeding 30 to 1 are usually deemed uncomfortable; 10 to 1 are clearly visible; and less than 3 to 1 appear to be of equal value.

Fully Shielded: A lighting fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the Luminaire, is projected below the horizontal as determined by photometric test or certified by the manufacturer. Any structural

[7] *IESNA 10th Edition, Section 4.10.1 Discomfort Glare, page 4.26*

part of the light fixture providing this shielding must be permanently affixed. In other words, no light shines above the horizontal from any part of the fixture.

Glare:

Glare is visual discomfort experienced from high luminance or high range of luminance. For exterior environments at night, glare occurs when the range of luminance in a visual field is too large. The light energy incident at a point is measured by a scale of footcandles or lux, and is described in the technical term Illuminance. This incident light is not visible to the eye until it is reflected from a surface, such as pavement, wall, dust in the atmosphere or the surface of a light bulb. The visible brightness of a surface is measured in footlamberts (or metric equivalent candelas per square meter) and is described by the term Luminance.

The human eye processes brightness variations across a very broad spectrum of intensities. The ratio of brightness values generated by direct noon sun versus a moonlight evening is over 5000 to 1. Human eyes are capable of accommodating to this range of intensities given adequate time to adjust. However, the eye cannot process brightness ratios of more than 30 to 1 within a view without discomfort. See IESNA 10th Edition Handbook, Section 4.10.1, Discomfort Glare and Section 10.9.2 Calculating Glare.

For the purpose of this analysis, brightness of light sources may be described subjectively by the following criteria:

High Contrast Conditions: View of light fixture emitting surface, such as a lens, reflector, or lamp, where brightness contrast ratio exceeds 30 to 1 (source Luminance to background Luminance ratio in footlamberts).

Medium Contrast Conditions: Brightly lighted surfaces where contrast ratio exceeds 10 to 1, but is less than 30 to 1 (lighted surface Luminance to background Luminance ratio in footlamberts).

Low Contrast Conditions: Illuminated surfaces where contrast ratio exceeds 3 to 1, but less than 10 to 1 (source Luminance to background Luminance ratio in footlamberts).

Illuminance:

Illuminance is the means of evaluating the density of Luminous Flux. Illuminance indicates the amount of Luminous Flux from a light source falling on a given area. Illuminance is measured in footcandles (fc) which is the lumens per square foot, or Lux (lumens per square meter). Illuminance need not necessarily be related to a real surface since it may be measured at any point within a space. Illuminance is determined from the Luminous intensity of the light

source. Illuminance decreases with the square of the distance from the light source (see Inverse Square Law).

Horizontal Illuminance: Illuminance incident upon a horizontal plane. The orientation of the illuminance meter or calculation point will be 180° from Nadir.

Vertical Illuminance: Illuminance incident upon a vertical plane. The orientation of the illuminance meter or calculation point will be 90° from Nadir.

Inverse Square Law: In physics, an inverse-square law is any physical law stating that a specified physical quantity or intensity is inversely proportional to the square of the distance from the source of that physical quantity. The fundamental cause for this relationship can be understood as geometric dilution corresponding to point-source radiation into three-dimensional space (see Figure 1). The divergence of a vector field which is the resultant of radial inverse-square law fields with respect to one or more sources is everywhere proportional to the strength of the local sources, and hence zero outside sources. Newton's law of universal gravitation follows an inverse-square law, as do the effects of electric, magnetic, light, sound, and radiation phenomena. Thus, Illuminance decreases with the square of the distance from the light source.

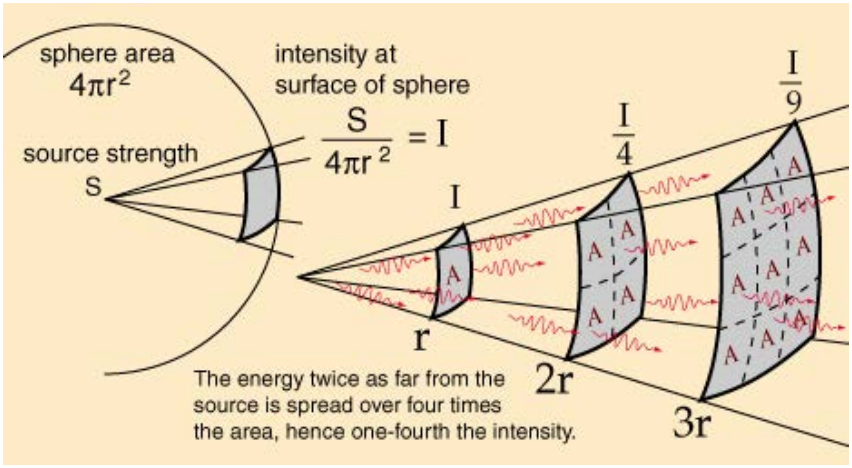


Figure 1: Inverse Square Law Diagram

Output Direction: Luminaires for general lighting are classified in accordance with the percentages of total luminaire output emitted above and below horizontal. The light distribution curves may take many forms within the limits of upward and downward distribution, depending upon the type of light and the design of the luminaire.

Lighting Array: An installation of multiple light sources or lamps where the distance between each lamp or light source within the Lighting Array is less than 5 feet on center in any direction from any other source.

Light Source: Device which emits light energy from an electric power source.

Light Trespass: Electric light from subject property incident onto adjacent properties, measured in footcandles or lux, usually analyzed by measurement at or near the adjacent property line.

Lighting Zone: Defined by IESNA and summarized in Table 26.4 in the 10th Edition and adopted by the CALGreen

Lighting Zone LZ2: Outdoor areas of human activity where the vision of human residents and users is adapted to moderate light levels. Lighting is not uniform or consistent. Lighting is generally desired for safety, security and/or convenience.

Lighting Zone LZ3: Outdoor areas of human activity where the vision of human residents and users is adapted to moderately high light levels. Lighting is generally desired for safety, security and/or convenience.

Lighting Zone LZ4: Outdoor areas of human activity where the vision of human residents and users is adapted to high light levels. Lighting is generally desired for safety, security and/or convenience.

Luminaire: A complete lighting unit consisting of a lamp or lamps and ballast(s) (when applicable) together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply. Also referred to as a Light Fixture.

Luminance: Luminance is a measure of emissive or reflected light from a specific surface in a specific direction over a standard area. Luminance is measured in footlamberts (fL) (Candela per square foot) or cd/m^2 (Candela per square meter). 1fL = 3.43 cd/m^2.

Whereas Illuminance indicates the amount of Luminous Flux falling on a given surface, Luminance describes the brightness of an illuminated or luminous surface. Luminance is defined as the ratio of luminous intensity of a surface (Candela) to the projected area of this surface (m^2 or ft^2).

Luminous Flux: Mean value of total Candelas produced by a light source. Luminous Flux describes the total amount of light emitted by a light source. The unit for measuring Luminous Flux is Lumen (lm).

This radiation could basically be measured or expressed in watts. This does not, however, describe the optical effect of a light source adequately, since the varying spectral sensitivity of the eye is not taken into account. To include the spectral sensitivity of the eye the Luminous Flux is measured in lumen. Radiant Flux or 1 W emitted at the peak of the spectral sensitivity (in the photopic range at 555 nanometers produces a Luminous Flux of 683 lumen). The unit of lumen does not define direction.

Skyglow: Skyglow is the description of luminous atmospheric background and results from both natural and human made conditions. Natural causes of skyglow include sunlight reflected from the surface of the earth and moon, sunlight illuminating the upper atmosphere, and visible illumination from other interplanetary sources. Human made causes of skyglow include electric light that is emitted directly upward into the sky (Uplight), or reflected off of the ground. Such light illuminates the aerosol particles within the atmosphere and results in a luminous background.

Uplight: Uplight is the primary cause of skyglow and can be differentiated into two zones, (1) Lower Uplight and (2) Upper Uplight. Lower uplight describes light between 90° and 100° above nadir. Most skyglow is caused by Lower Uplight. Upper Uplight results primarily in energy waste.

3. Regulatory Framework

3.1 Los Angeles Municipal Code

The City of Los Angeles Municipal Code (LAMC) regulates lighting with respect to building lighting, transportation, street lighting and light trespass (i.e., the spillover of light onto adjacent light-sensitive properties). The City also enforces the building code requirements of the Los Angeles Building Code, the California Building Code, the California Green Building Standards Code (CALGreen), and the California Electrical Code.

Applicable regulations for Phase I include the 2011 versions of the Los Angeles Building Code, the California Building Code, The California Green Building Standards Code (CALGreen), and the California Electrical Code. Applicable regulations for Phase II include the 2013 versions of the Los Angeles Building Code, the California Building Code, The California Green Building Standards Code (CALGreen), and the California Electrical Code.

The Los Angeles Municipal Code includes the following sections pertaining to illumination:

- Chapter 1, Article 4.4, Sec. 14.4.4 E. No sign shall be arranged and illuminated in such a manner as to produce a light intensity greater than 3 foot-candles above ambient lighting, as measured at the property line of the nearest residentially zoned property. This standard generally applies to all illuminated signs in this study.[8]
- Chapter 9, Article 9, Division 5, Sec 99.05.106.8. Comply with lighting power requirements in the California Energy Code, California Code of Regulations, Title 24, Part 6. Meet or

[8] *Note that the illumination standard for illuminated signs (Chapter 1, Article 4.4., Sec. 14.4.4 E) is different than the illumination standard for building and site lighting, which is set forth in Chapter 9, Article 3, Div. 1, Sec. 93.0117(b) (No exterior light may cause more than 2 foot-candles of lighting intensity or generate direct glare onto exterior glazed windows or glass doors on any property containing residential units; elevated habitable porch, deck, or balcony on any property containing residential units; or any ground surface intended for uses such as recreation, barbecue or lawn areas or any other property containing a residential unit or units). Because Section 93.0117 does not apply to illuminated signs it is not utilized in this study.*

exceed exterior light levels and uniformity ratios for lighting zone 3 as defined in Chapter 10 of the California Administrative Code, Title 24, Part 1.

3.2 California Code of Regulations, Title 24

Title 24 of the California Code of Regulations (CCR), also known as the California Building Standards Code, consists of regulations to control building standards throughout the State. The following components of Title 24 include standards related to lighting:

California Building Code (Title 24, Part 1) and California Electrical Code (Title 24, Part 3)

- The California Building Code (Title 24, Part 1) and the California Electrical Code (Title 24, Part 3) stipulate minimum light intensities for safety and security at pedestrian pathways, circulation ways, and paths of egress. All lighting for the Metropolis Development will comply with the requirements of the California Building Code.

California Energy Code (Title 24, Part 6)

- The California Energy Code (CEC) stipulates allowances for lighting power and provides lighting control requirements for various lighting systems, with the aim of reducing energy consumption through efficient and effective use of lighting equipment.

Section 130.2 sets forth requirements for Outdoor Lighting Controls and Luminaire Cutoff requirements. All outdoor luminaires rated above 150 watts shall comply with the backlight, up light, and glare "BUG" in accordance with IES TM-15-11, Addendum A, and shall be provided with a minimum of 40% dimming capability activated to full on by motion sensor or other automatic control. This requirement does not apply to street lights for the public right of way, signs or building façade lighting.

Section 140.7 sets forth outdoor lighting power density allowances in terms of watts per area for lighting sources other than signage. The lighting allowances are provided by Lighting Zone, as defined in Section 10-114 of the CEC. Under Section 10-114, all urban areas within California are designated as Lighting Zone 3.

Section 130.3 stipulates sign lighting controls with any outdoor sign that is ON day and night must include a minimum 65 percent dimming at night. Section 140.8 of the CEC sets forth lighting power density restrictions for signs.

California Green Building Standards Code (Title 24, Part 11)

The California Green Building Standards Code, which is Part 11 of Title 24, is commonly referred to as the CALGreen Code. Paragraph 5.106.8 Light pollution reduction, defines all non-residential outdoor lighting must comply with the following:

- The minimum requirements in the CEC for Lighting Zones 1–4 as defined in Chapter 10 of the California Administrative Code; and
- Backlight, Uplight and Glare (BUG) ratings as defined in the Illuminating Engineering Society of North America's Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-11, Appendix A); and

- Allowable BUG ratings not exceeding those shown in Table A5.106.8 in Section 5.106.89 of the CALGreen Code (excerpt included in the Appendix); or
- Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

3.3 California Vehicle Code, Division 11. Rules of the Road

Chapter 2, Article 3 of the California Vehicle Code stipulates limits to the location of light sources that may cause glare and impair the vision of drivers.

- ARTICLE 3. Offenses Relating to Traffic Devices [21450 - 21468] (Article 3 enacted by Stats. 1959, Ch. 3.), Section 21466.5. No person shall place or maintain or display, upon or in view of any highway, any light of any color of such brilliance as to impair the vision of drivers upon the highway. A light source shall be considered vision impairing when its brilliance exceeds the values listed below.

  The brightness reading of an objectionable light source shall be measured with a 1-1/2 degree photoelectric brightness meter placed at the driver's point of view. The maximum measured brightness of the light source within 10 degrees from the driver's normal field of view shall not be more than 1,000 times the minimum measured brightness in the driver's field of view, except that when the minimum measured brightness in the field of view is 10 footlamberts or less, the measured brightness of the light source in footlambert shall not exceed 500 plus 100 times the angle, in degrees, between the driver's field of view and the light source.

4. IESNA Recommended Practices

The Illuminating Engineering Society of North America (IESNA) recommends illumination standards for a wide range of building and development types. These recommendations are widely recognized and accepted as best practices and are therefore a consistent predictor of the type and direction of illumination for any given building type. For all areas not stipulated by the regulatory building code, municipal code or specifically defined requirements, the IESNA standards are typically used as the basis for establishing the amount and direction of light.

The IESNA 10th Edition Lighting Handbook defines Outdoor Lighting Zones relative to a range of human activity versus natural habitat. Table 26.4, Nighttime Outdoor Lighting Zone Definitions, included in the Appendix D hereto, establishes the Zone designation for a range of existing lighting conditions, from low or no existing lighting to high light levels in urban areas. Table 26.4 is referenced by the California Energy Code Title 24 in section 10-114 of the CEC and section 140.7 relative to allowable energy use for outdoor lighting. In addition, the IESNA 10th Edition Lighting Handbook defines Recommended Light Trespass Limits in Table 25.5, included in the Appendix hereto, relative to the Outdoor Lighting Zones. The Recommended Light Trespass Illuminance Limits describe the maximum light trespass values in Lux at the location where trespass is under review. As noted above, the CEC stipulates that all urban areas in California

[9] *Table 5.106.8, Footnote 2 defines the location of the Property Line for the purpose of evaluating compliance with the BUG ratings and provides that: "For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section." See Appendix C.*

are designated as Lighting Zone 3. IESNA Table 25.5, lists a Pre-curfew 8 Lux (0.76 footcandles) maximum at the location where trespass is under review for Zone 3. This limit would apply to all building and exterior site lighting, but does not apply to illuminated signs, which are specifically exempted from both IESNA standards listed above.

5. Significance Threshold

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to aesthetics, including light and glare. The question that pertains to light and glare is as follows:

Would the project:

- Create a new source of substantial light and glare which would adversely affect day or nighttime views in the area?

In the context of this question from Appendix G of the CEQA Guidelines, the *City of Los Angeles CEQA Thresholds Guide* states that the determination of significance shall be made on a case-by case- basis, considering the following factors:

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

Based on these factors, the LAMC requirements identified above, and IESNA definition of glare for residential uses, the Project would have a significant light or glare impact on a sensitive receptor if:

- The Project generates light emissions associated with an illuminated sign that produces a light intensity exceeding 3.0 foot-candles at the property line of a residentially zoned property.
- The Project creates new high contrast conditions (contrast ratio over 30:1) visible from a field of view from a residential use.

In addition, based on the California Vehicle Code requirements identified above, the Project would have a significant impact with regard to artificial light or glare effects on drivers of motor vehicles if:

- The Project generates light intensity levels greater than 1,000 times the minimum measured brightness in the driver's field of view, except when the minimum values are less than 10 footlamberts (fL).
- At minimum values less than 10 footlamberts (fL) the source brightness exceeds 500 fL plus 100 times the angle, in degrees, between the driver's field of view and the light source.

6. Existing Conditions

6.1 Introduction

The existing conditions within and adjacent to the Project Site include existing residential, commercial office and retail properties, surface parking lots, and the State Route-110 (Harbor Freeway), and adjacent City of Los Angeles streets. Existing lighting conditions are documented at Receptor Site locations surrounding the Project Site to comprehensively define the range of

existing lighting conditions and views from the surrounding properties to the Project Site. Illuminance (fc) and luminance cd/m^2 were measured at each Receptor Site in accordance with the procedures outlined in Section 7.1 Methodology, subsections 7.1-1 and 7.1-2 below. Views of the Project site from the adjacent freeway are evaluated to determine the visibility of the Project illuminated signs within the drivers' field of view and the surrounding lighting conditions.

The existing conditions data is analyzed in comparison to the Project's proposed lighted signs as part of the evaluation of the Project's light and glare. The following section provides a detailed description of each Receptor Site location and elaborates on the conditions within each Receptor Site.

6.2 Receptor Site Locations

Receptor Sites are utilized to evaluate the maximum potential impacts that may result from light or glare onto properties and roadways surrounding the Project site to the north, east, south, and west. The Receptor Site locations are within close proximity of the Project illuminated signs and have views of the Project Site. Some of the Receptor Sites may be considered existing residential use properties, while others are not residential, but are located adjacent to existing residential properties or in close proximity to the Project. The Roadway Receptor site locations are within close proximity of the Project illuminated signs, are within the State Route-110 (Harbor Freeway) Caltrans right of way, have views of the Project Site, and are within areas where signs could present a distraction to drivers.

The following criteria are used to select potential Receptor Site locations:

- Future Light Visibility – Potential receptor sites are analyzed that provide direct view of the areas of greatest light intensity.
- Proximity – Potential receptor sites at a minimum distance to the Project are analyzed. These locations are selected because light intensity decreases[10] exponentially with distance, locations at a greater distance will experience less light intensity than nearby locations.

Figure 2 below illustrates the Project location, the surrounding adjacent residential property locations, nearby non-residential locations, and the existing freeway sign locations near the Project Site. The Project site is shaded green and the residential properties are shaded red. The Receptor Site locations are identified with an "R" prefix on the map (i.e. R1-a, R2-a, etc). The residential Receptor Sites are R1-a, R2-a, R2-b, R2-c and R4-b. The non-residential Receptor Sites are R3-a, R3-b and R4-a. The Roadway Receptor Sites within the State Route-110 (Harbor Freeway) right of way are identified with an "F" prefix (i.e F1-a, F1-b, etc.). Freeway signs in the vicinity are noted and numbered.

Receptor Site R1-a: South of the Project Site, aligned with the axis of the southwest corner of the Project Site. Receptor Site R1-a is located to evaluate the Project illuminated signs at the southwest corner of the Project at the nearest residential property line to the south. Receptor Site R1-a is located at the north property line of 918 South Georgia Street on the east of the Georgia Street right of way. Distance to the Project Site is

[10] *The Inverse Square Law shows that the intensity of light diminishes at the square of the distance traveled. See the definition in Section 2, Glossary of Lighting Terminology for additional discussion.*

approximately 298 ft. Distance to the Project south exterior façade is approximately 310 ft.

Receptor Site R2-a: West of the Project Site, within the parking structure at 1111 8th Street, west of the intersection of West 8th Street and South Bixel Street. Receptor Site R2-a is located to evaluate the Project west facing signs adjacent to the eastern edge of the State Route-110 (Harbor Freeway). Distance to the Project Site is approximately 726 ft. Distance to Project west exterior façade is approximately 774 ft.

Receptor Site R2-b: West of the Project Site, east of the intersection of West 8th Street and South Bixel Street. Receptor Site R2-b is located to evaluate the Project illuminated signs at the west and north facades. Receptor Site R2-b is located at the existing residential property line at the north edge of the 8th Street right of way. Distance to the Project Site is approximately 207 ft. Distance to Project exterior façade is approximately 213 ft.

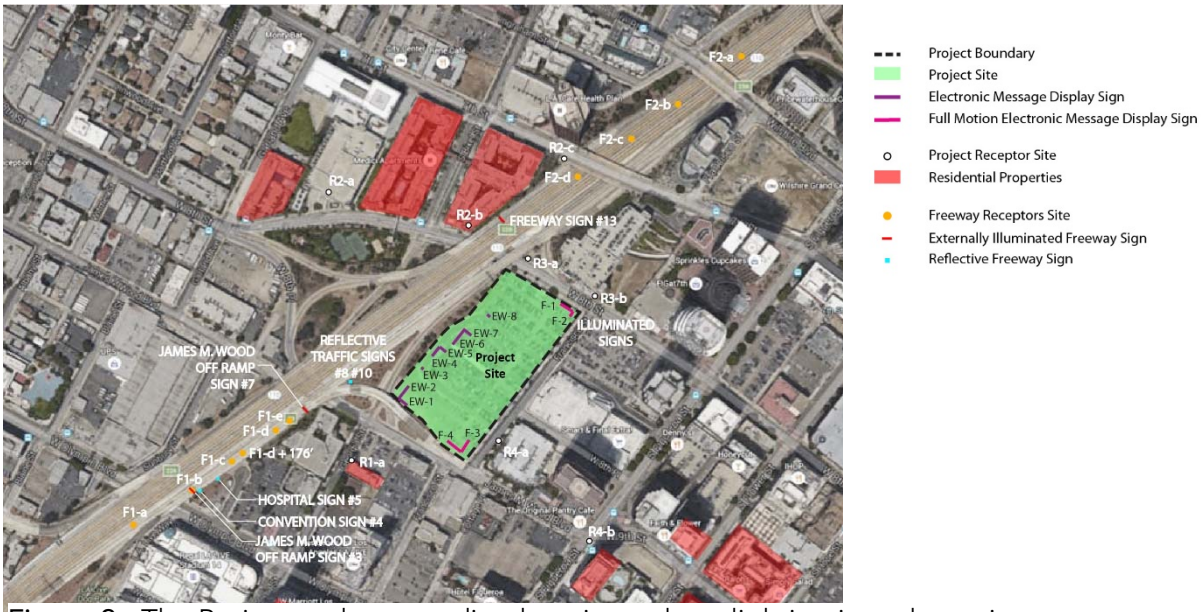


Figure 2: The Project and surrounding locations where lighting is under review

Receptor Site R2-c: West of the Project Site, at the West 7th Street overpass of the State Route-110 (Harbor Freeway), adjacent to the Medici residential property at 1068 7th Street. Receptor Site R2-c is located to evaluate the view to the west and north facing project façade signs. Distance to the Project Site is approximately 483 ft. Distance to Project exterior façade is approximately 507 ft.

Receptor Site R3-a: North of the northeast corner of the Project Site at the intersection of West 8th Street and Francisco Street to maximize the view into the Project at a minimum distance. Receptor Site R3-a is located to evaluate the view of the north facing Project illuminated signs. Receptor Site R3-a is a position located at the property line at the north

edge of the West 8th Street right of way. Distance to the Project Site is approximately approximately 84 ft. Distance to Project exterior façade is approximately 90 ft.

Receptor Site R4-a: East of the Project Site, Receptor Site R4-a is located at the east edge of the Francisco Street right of way, mid-block between James M. Wood Boulevard & 9th Street Off Ramp and West 8th Place. Receptor Site R4-a is located to evaluate the Project illuminated signs visible to the east of the Project site. Distance to the Project Site is approximately 65 ft. Distance to the Project exterior façade is approximately approximately 73 feet.

Receptor Site R4-b: East of the Project Site, Receptor Site R4-b is located at the east edge of the Figueroa Street right of way, south of the West 9th Street intersection at the existing residential property. Receptor Site R4-b is located to evaluate the Project illuminated signs at the existing residential property to the east of the Project Site. Distance to the Project Site is approximately 647 ft. Distance to the Project exterior façade is approximately 656 feet.

Receptor Site F1-a: Southwest of the Project Site, Receptor Site F1-a is located on the northbound State Route-110 (Harbor Freeway), south of the intersection with Olympic Blvd. Receptor Site F1-a is located to evaluate the Project illuminated signs visible and within the drivers field of view prior to the Downtown Exits portion of the Freeway. Distance to Project illuminated signs is approximately 1394 ft. Distance to James M. Wood Boulevard & 9th Street Off Ramp Sign #3 is approximately 471 ft.

Receptor Site F1-b: Southwest of the Project Site, Receptor Site F1-b is located on the northbound State Route-110 (Harbor Freeway), beneath the James M. Wood Boulevard & 9th Street Off Ramp sign #3. Receptor Site F1-b is located to evaluate the Project illuminated signs visible and within the driver's field of view at the approach to the James M. Wood Boulevard & 9th Street Off Ramp #7 sign. Distance to Project illuminated signs is approximately 1042 ft. Distance to James M. Wood Boulevard & 9th Street Off Ramp Sign #7 is approximately 560 ft.

Receptor Site F1-c: Southwest of the Project Site, Receptor Site F1-c is located on the northbound State Route-110 (Harbor Freeway), between the two overhead freeway signs identifying the James M. Wood Boulevard & 9th Street Off ramp, Sign #3 and Sign #7. Receptor Site F1-c is located to evaluate the Project illuminated signs visible and within the driver's field of view. Distance to Project illuminated signs is approximately 904 ft. Distance to Freeway overhead Sign James M. Wood Blvd. & 9th Street Off Ramp Sign #7 is approximately 419 ft.

Receptor Site F1-d+176': Southwest of the Project Site, Receptor Site F1-d +176' is located on the northbound State Route-110 (Harbor Freeway), at 176 ft south of Receptor Site F1-d. A driver requires a minimum 2 seconds reaction

time, which is 176 feet at 60 mph, for sufficient reaction time to information such as a freeway exit. Receptor site F1-d+176' is located 176 feet south of Receptor site F1-d to evaluate the Project illuminated signs visible and within the driver's field of view at this location. Distance to Project illuminated signs is approximately 885 ft. Distance to Freeway overhead sign James M. Wood Blvd. & 9th Street Off Ramp Sign #7 is approximately 360 ft.

Receptor Site F1-d: Southwest of the Project Site, Receptor Site F1-d is located on the northbound State Route-110 (Harbor Freeway), to evaluate the Project illuminated signs within the driver's field of view and adjacent freeway signs. Distance to Project illuminated signs is approximately 756 ft. Distance to Freeway overhead sign James M. Wood Blvd. & 9th Street Off Ramp Sign #7 is approximately 184 ft.

Receptor Site F1-e: Southwest of the Project Site, Receptor Site F1-e is located on the northbound State Route-110 (Harbor Freeway), within close proximity to the Freeway overhead sign #7, James M. Wood Blvd. & 9th Street Off Ramp. Receptor Site F1-e is located to evaluate the visibility of the Project illuminated signs within the driver's field of view, and visibility of other roadway signs, exit ahead sign #8, and signal ahead sign #10, as the driver approaches the exit ramp. Distance to Sign Project illuminated signs is approximately 457 ft. Distance to Freeway sign James M. Wood Blvd. & 9th Street Off Ramp Sign #7 is approximately 107 ft.

Receptor Site F2-a: Northeast of the Project Site, Receptor Site F2-a is located on the southbound State Route-110 (Harbor Freeway), before the Wilshire Blvd overpass bridge. Receptor Site F2-a is located to evalate the visibility of the Project illuminated signs and the illuminated Freeway Sign #13. Distance to Project illuminated signs is approximately 1435 ft. Distance to overhead Freeway Sign #13 is approximately 1150 ft.

Receptor Site F2-b: Northeast of the Project Site, Receptor Site F2-b is located on the southbound State Route-110 (Harbor Freeway), south of the Wilshire Blvd overcrossing. Receptor Site F2-a is located to evaluate the visibility of the Project illuminated signs within the driver's field of view and the illuminated Freeway Sign #13. Distance to Project illuminated signs is approximately 1130 ft. Distance to overhead Freeway Sign #13 is approximately 835 ft.

Receptor Site F2-c: Northeast of the Project Site, Receptor Site F2-c is located on the southbound State Route-110 (Harbor Freeway), before the 7th Street overcrossing. Receptor Site F2-c is located to evaluate the visibility of the Project illuminated signs within the driver's field of view and the adjacent Freeway Sign #13. Distance to Project illuminated signs approximately 920 ft. Distance to overhead freeway sign #13 is approximately 612 ft.

Receptor Site F2-d: Northeast of the Project Site, Receptor Site F2-d is located on the southbound State Route-110 (Harbor Freeway), south of the 7th Street overcrossing. Receptor Site F2-d is located to evaluate the Project illuminated signs visible and within the driver's field of view, and the adjacent freeway signs in this vicinity. Distance to the Project illuminated signs is approximately 640 ft. Distance to overhead Freeway Sign #13 is approximately 325 ft.

6.3 Criteria

As established in Section 5, the following factors were used to assess the existing conditions at each receptor site:

Table 1. Existing Conditions Lighting Criteria

Criteria	Metric	Procedure
Illuminance /Trespass	Measured illuminance (lux/footcandle) documented at each receptor site	Horizontal and vertical illuminance measurements at each receptor site with Minolta illuminance meter.[11]
Glare / Contrast	Observed existing conditions	Observed and recorded conditions with respect to the view to the Project Site from the receptor site in terms of project coverage and context, light sources, lighted surfaces, and illuminated signs.

6.4 Analysis of Receptor Site Survey Data

Both Phase 1 and Phase 2 of the Metropolis Development are currently under construction, therefore views from the Receptor sites of the Project site include construction phase lighting. The existing Project Site conditions and observations are summarized below in relation to the evaluation factors established in Section 5, Significance Threshold:

Illuminance: The Illuminance values listed in Table 2 below summarize the measured Illuminance at the Receptor Sites. The measured illuminance values are consistent with an urban lighting condition, with relatively high illuminance at the street and sidewalk within the public right of way, and high illuminance within the private properties for safety and security. Many of the properties include illuminated signs which contribute to a relatively bright night environment.

[11] *Horizontal Illuminance measurements are recorded with the light meter held horizontally and the sensor at 180 degrees to the nadir at 3 feet above grade. Vertical illuminance measurements are recorded with the light meter in the vertical position and the sensor located 90 degrees from nadir at 3 feet above grade. For the Project, the vertical illuminance data is presented to identify the sum of all existing illuminance at the receptor sites from the direction of the Project Site. The existing lights at the Project Site and at the surrounding streets vary in height from grade mounted flood lights to medium height light poles at approximately 25 feet above grade. This range of variation in height produces an angle of incidence to the light meter of less than 10 degrees for receptor sites at 125 feet from the Project Site and less than 5 degrees at distances above 300 feet. Because of these conditions, the vertical illuminance measurements are used in this Study to summarize values for incident illuminance at the receptor sites and is a more conservative measurement than perpendicular illuminance data.*

The highest existing horizontal illuminance level was recorded at receptor sites R2-b with 7.63 fc, while the lowest horizontal illuminance was recorded at receptor site R3-a at 0.24 fc. The horizontal illuminance values at R2-b are estimated due to the inaccessible nature of the existing residential units. The next lower measured value is at R4-b at 2.8 fc.

Table 2. Illuminance Measurements at Receptor Sites

Receptor	Measurement	Illuminance (fc)	Notes
R1-a	Horizontal	0.38	Measured at northwest corner of building at 918 South Georgia
	Vertical	1.08	
R2-a	Horizontal	0.62	Measured at parapet wall on top (9th) floor of parking structure
	Vertical	0.30	
R2-b	Horizontal	7.63	Values estimated from measured values at R2-a
	Vertical	3.69	
R2-c	Horizontal	0.51	Measured in close proximity to roadway light pole
	Vertical	0.31	
R3-a	Horizontal	0.24	Measured in close proximity to roadway light pole
	Vertical	0.23	
R3-b	Horizontal	1.44	Measured near freeway bridge
	Vertical	0.99	
R4-a	Horizontal	1.73	Measured adjacent to roadway lighting pole
	Vertical	0.36	
R4-b	Horizontal	2.80	Measured adjacent to building mounted wall pack
	Vertical	2.96	

The highest existing vertical illuminance level was recorded at receptor sites R2-b with 3.69 fc, while the lowest vertical illuminance was recorded at receptor site R3-a at 0.23 fc. The vertical illuminance values at R2-b are estimated due to the inaccessible nature of the residential units. The next lower vertical illuminance value is at R4-b at 2.96 fc.

The existing on-site construction lighting is observed at each receptor site and noted as a temporary condition. This temporary construction lighting is not used as a part of the calculations or comparisons to the Project illuminated signs. However, the temporary light sources are included in the survey observations and are recorded to comprehensively note all contributing light sources at each location.

Contrast/Glare: The visual evaluation of High, Medium and Low Contrast describes the perception of how bright a visible object appears to the surrounding objects within any given field of view and context. High Contrast indicates a potential glare condition for residential use receptor sites (R1-a, R2-a, R2-b, R2-c and R4-b). Table 3 below summarizes the measured luminance at each Receptor Site along with qualitative descriptions of the existing conditions. The qualitative summary includes notations regarding the brightness of visible light sources and surrounding illuminated surfaces within the field of view to the Project Site from the Receptor Sites, the visibility of the Project site within the field of view, including the context of the field of view described as a percentage of a 180 degree view toward the Project, and the coverage percentage of the Project site within the context field of view.

Table 3: Luminance Measurements and Glare Analysis

Receptor Site	Luminance (cd/m^2)		Glare / Contrast Analysis	Context	Coverage
	Max	Average			
R1-a	25770	5149	High Contrast from adjacent parking lot lights. Direct view of Project Site with no obstructions. Illuminated signs will be visible from this location.	40%	90%
R2-a	224	28	Low contrast from exterior lighting and signs from nearby buildings. Direct, distant view of Project Site with low level obstructions where the Freeway and landscape block the view. Project Illuminated signs will be visible from this location.	90%	90%
R2-b	305	80	Medium contrast from exterior lighting and signs from nearby buildings. Estimated direct view of Project Site with obstructions at lower floors from the Freeway and landscape block the view. Project Illuminated signs will be visible from this location.	50%	70%
R2-c	305	79	Low contrast from exterior lighting and signage from nearby buildings. Direct view of Project Site with obstructions at lower floors where the freeway or landscape block the view. Project illuminated signs will be visible from this location.	80%	30%
R3-a	3648	666	Low Contrast/Glare. Direct view of Project Site with no obstructions. Project illuminated signs visible.	100%	100%
R3-b	5879	1417	Medium contrast/Glare. Moderate exterior lighting and signage from nearby buildings. Direct view of Project Site with no obstructions. Project illuminated signs visible.	90%	80%
R4-a	3480	450	Medium contrast/Glare. Exterior lighting from adjacent buildings. Direct view of temporary construction lights on Project Site with no obstructions. Project illuminated signs visible.	100%	90%

R4-b	24490	2473	High contrast/Glare. Moderate exterior lighting from adjacent buildings. Direct view of Project Site with minimal obstruction by trees and buildings. Project Illuminated signs limited visibility.	20%	15%

6.5 Observations from Receptor Sites

6.5-1 Receptor Site R1-a:

South of Project Site at the north property line of 918 South Georgia Street at the east side of the right of way.

Record of Observations: January 14, 2016, 7 pm.
Weather Conditions: Clear, Waxing Crescent

Figure 3: R1-a day view (estimated location of Project site in red)

Receptor Site R1-a is located south of the intersection of the James M. Wood Boulevard and S. Georgia St. south of the Project Site, at the north property line of 916 S. Georgia St., adjacent to an existing surface parking lot. The property at Receptor Site R1-a is a three story residential building, fronting on S. Georgia St. with windows on levels one through 3 facing north to the Project site and west to S. Georgia St.

Within the City street right-of-way along James M. Wood Boulevard and South Georgia Streets there are existing pedestrian scaled light poles and taller City street light poles. The pedestrian light poles have a symmetric lighting distribution. The illuminance was measured facing the City street light poles, therefore the vertical illuminance level is high 1.08 fc. The incident light at the surface of the residential building is much lower than at the Receptor Sites R1-a.

As shown in Figure 3 and Figure 4, Receptor Site R1-a has a clear view of the Project south façade and the adjacent freeway ramp. The brightest light source is a high pressure sodium light pole at the north edge of the adjacent parking lot. There is no direct glare from any existing sources within the Project site; however, there are high brightness light sources visible such as the construction lighting (4695 cd/m^2), parking lot lights (25,770 cd/m^2), and HealthCare Partners Medical Group sign (373.1 cd/m^2). The ambient surface brightness was also measured at three

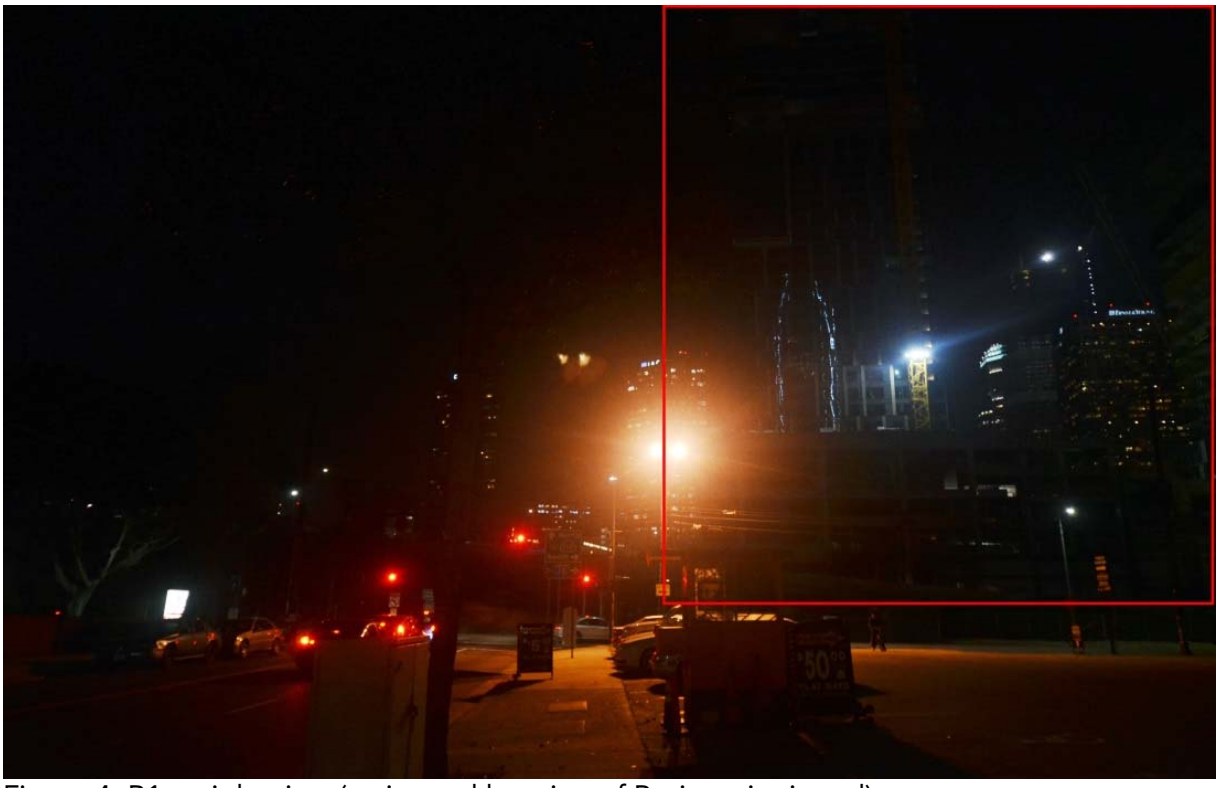


Figure 4: R1-a night view (estimated location of Project site in red)

different surfaces within the field of view, and the average is low at 1 cd/m^2. The average of all measured luminance (excluding the construction lighting) is 5140 cd/m^2.

6.5-2 Receptor Site R2-a

Northwest of Project Site, south edge of parking structure located west of the Medici Apartments buildings.

Record of Observations: January 14, 2016, 7 pm.
Weather Conditions: Clear, Waxing Crescent

Receptor Site R2-a is located west of the Project site, at the south edge of the parking structure at 1111 West 8th St, Los Angeles, CA 90017. The field observations were recorded at the highest level of the parking structure, level P9, in close proximity to a parking light pole and adjacent to the parapet wall. The adjacent light pole has a symmetrical lighting distribution with a horizontal illuminance of 0.62 fc. The vertical illuminance values are low at 0.30 fc.

Figure 5: day view (estimated location of Project site in red)

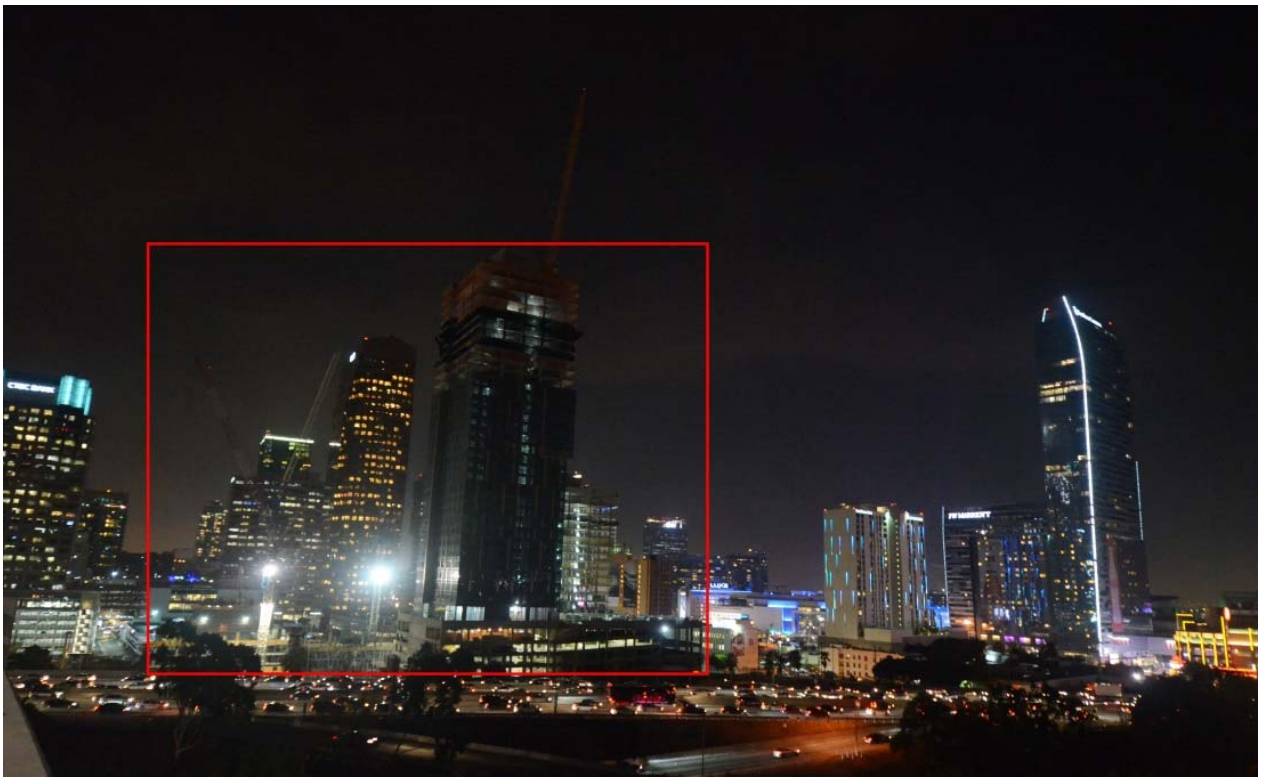


Figure 6: R2-night view (estimated location of Project site in red)

As shown in Figure 5 and Figure 6, Receptor Site R2-a has distant direct view of the Project site with obstructions at the ground level from the freeway and landscape. This location is within an urban environment with a wide field of view including multiple illuminated buildings visible on

the adjacent skyline. There are many high brightness sources visible from Receptor Site R2-a, listed in decreasing luminance levels: overhead temporary construction lighting on crane (2589 cd/m^2), adjacent parking lot light poles (224 cd/m^2), Ritz Carlton fin lighting (24.03 cd/m^2), Illuminated Building Crown (31 cd/m^2), J.W. Marriot Sign (13.04 cd/m^2), temporary interior construction flood lighting (8.32 cd/m^2), and the CTBC Green Sign (6.54 cd/m^2). The area surrounding Receptor Site R2-a is well illuminated with many light sources from the surrounding City streets, parking lots, and buildings. Light from the car headlights on the freeway and adjacent streets is also visible. The average ambient luminance of 6 different background surface areas is 1.2 cd/m^2. The light emitted from the automobiles was not measured as traffic patterns vary over time. The average of all measured luminance (excluding the construction lighting) is 28.29 cd/m^2.

6.5-3 Receptor Site R2-b:

Northwest of the Project Site, at the southwest corner of apartment building adjacent to the southbound State Route-110 (Harbor Freeway).

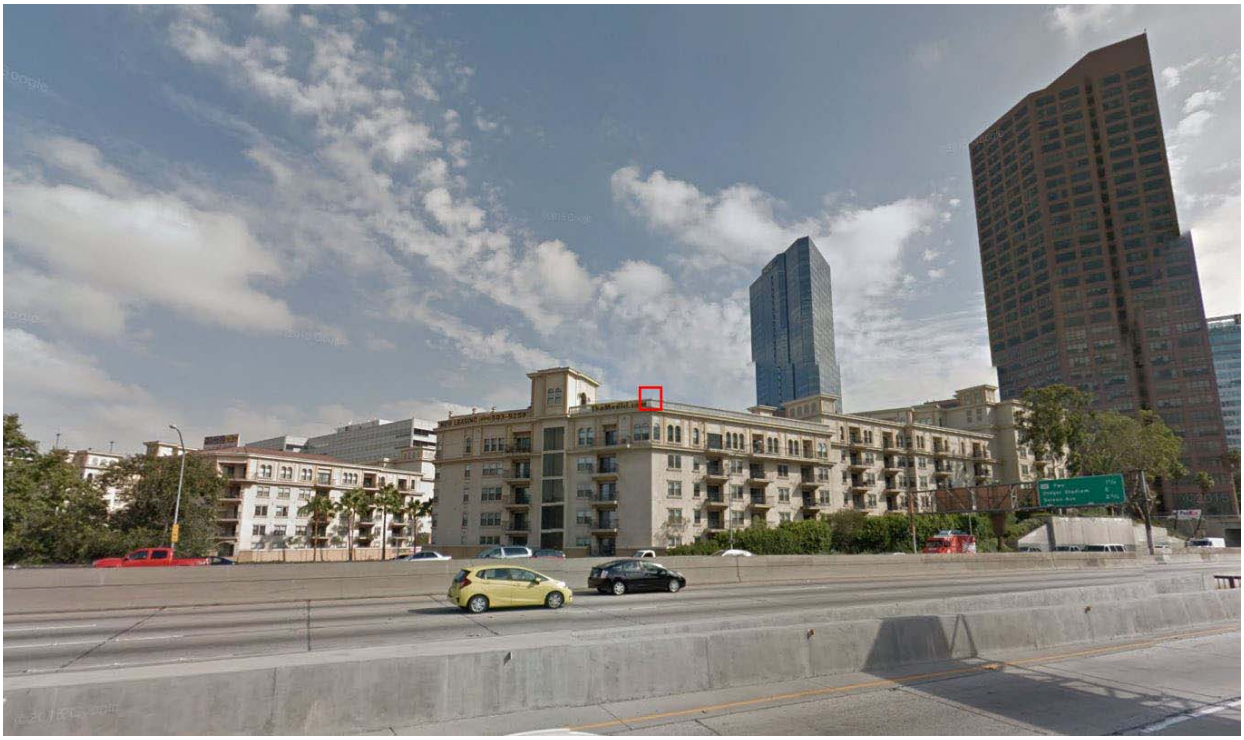


Figure 7: R2-b day view (Location highlighted in red)

Figure 8: R2-b night view of existing illuminated buildings and signs adjacent to the Project

Receptor Site R2-b is located on private property and is not available for field observation. This location is chosen to evaluate the impact on the closest residential property north and west of the Project. As shown in Figure 7, Receptor site R2-b is located immediately north of West 8th Street, to the west of the southbound lanes of the State Route-110 (Harbor Freeway) and is adjacent to a freeway light pole. There is direct view of the Project from level 3 to level 6 within the apartment building residences facing east or south. The distance to the Project site is approximately 207 feet.

Since this site was not directly accessible for measurement, the existing illuminance and luminance is calculated by means of the methods outlined below in section 7.2.1. The distances to the Project site and to adjacent existing light sources are similar to Receptor Site R2-c. The illuminance and luminance values measured at R2-c are utilized to predict the values at R2-b.

The estimated existing horizontal illuminance is 7.63 fc and estimated existing vertical illuminance is 3.69 fc. The peak value of vertical illuminance occurs near the parapet of the southeast façade. Vertical illuminance decreases from the parapet to the ground floor, where the peak value is 1.3 fc.

The luminance values are estimated maximum luminance is 299.2 cd/m^2 and the estimated average luminance is 80 cd/m^2.

Table 4: Receptor Site R2-b: Calculated Luminance from R2-c

Receptor Site	CTBC Bank		Fig at & 7th Parking Structure	
	Logo	Lantern	Interior	Parking Pole
Distance D (ft.)				
R2-b	1009	1010	377	421
R2-c	1007	1010	345	417
Luminance (fL) - measured at R2-c				
R2-c	89.0	31.0	188.0	305.0
Luminance (fL) - calculated at R2-b				
Luminance R2-b, formula:			$L_{R2b} = L_{R2a} \times (D_a / D_b)^2$	
R2-b	88.6	31.0	157.4	299.2

6.5-4 Receptor Site R2-c:

Northwest of the Project site, at the southwest edge of the West 7th Street overcrossing, provides a direct view of the Project's west and north façade.

Record of Observations: January 14, 2016, 7 pm.

Weather Conditions: Clear, Waxing Crescent

Receptor Site R2-c is located north west of the Project site, at the south edge of the State Route-110 (Harbor Freeway) 7th Street overcrossing. The field observations were taken at the edge of the bridge adjacent to a roadway light pole with symmetrical lighting distribution. The vertical illuminance value is low at 0.31 fc. Horizontal illuminance at the sidewalk is also low at 0.51 fc.

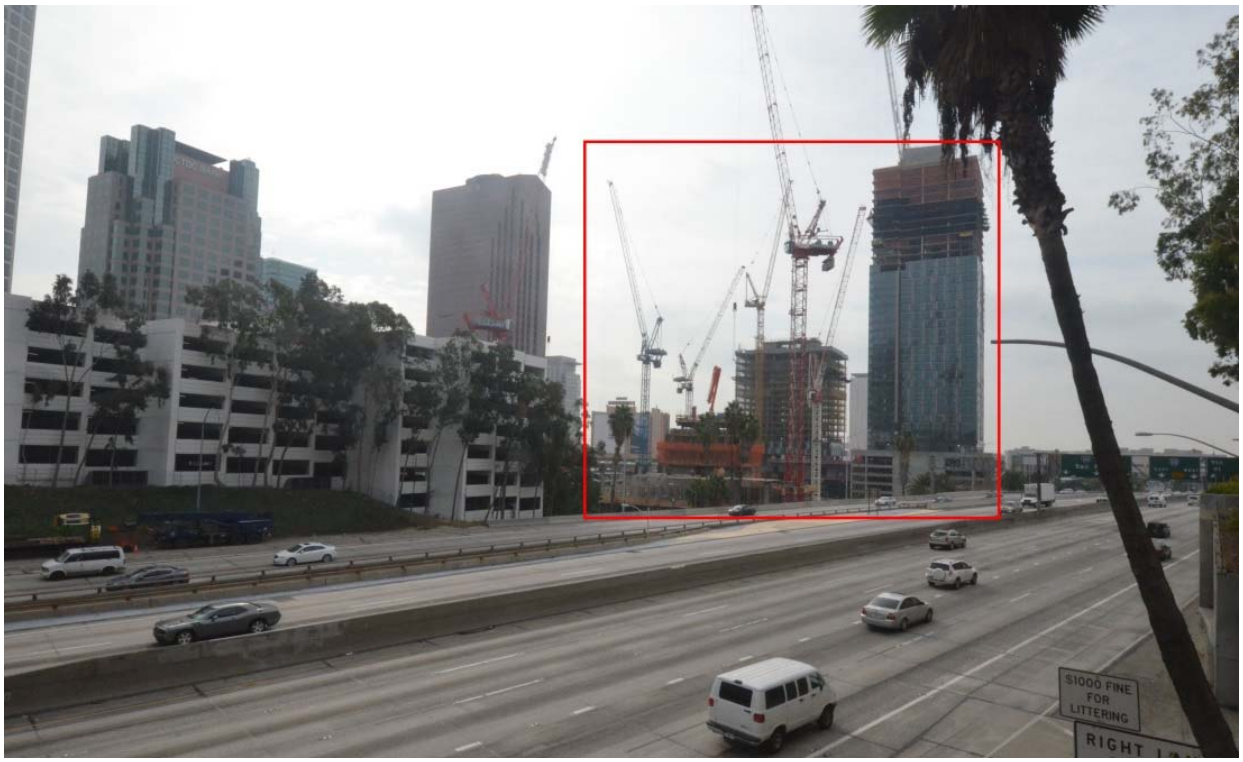


Figure 9: R2-c day view (estimated location of Project site in red)

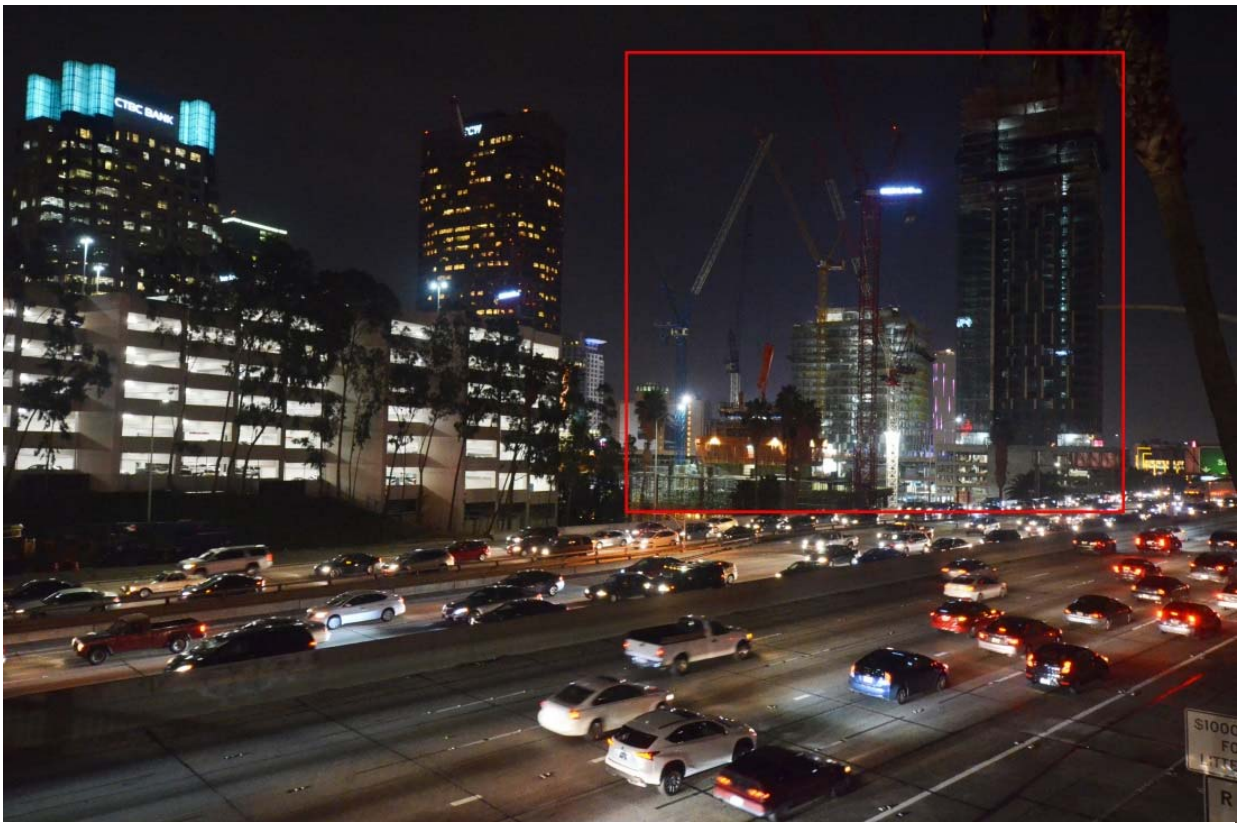


Figure 10: R2-c night view (estimated location of Project site in red)

As shown in Figure 9 and Figure 10, Receptor Site R2-c has direct view of the Project site with

obstructions at the podium levels from the freeway and landscape. This location is within an urban environment with multiple internally illuminated buildings visible on the adjacent skyline. There are many high brightness sources within this view, listed in decreasing luminance levels: overhead temporary construction lighting on crane (2429 cd/m^2), Fig at 7th parking structure roof light poles (305 cd/m^2 and 251.9 cd/m^2) internal lighting within the Fig at 7th parking structure north of the Project site (188.1 cd/m^2), CTBC Bank sign (89 cd/m^2), Greenland sign mounted to top of project site crane (82.05 cd/m^2), internally illuminated building crown at CTBC Bank to the east of the Project site (31 cd/m^2). The average measured luminance of the visible illuminated surfaces is approximately 235 cd/m^2. Car headlights from the adjacent freeway contribute to the overall brightness. The light emitted from the automobiles was not measured as traffic patterns vary over time. The average of all measured luminance (excluding the temporary construction lighting) is 79.18 cd/m^2.

6.5-5 Receptor Site R3-a:

North of the northeast corner of the Project site, at north boundary of West 8th Street, adjacent to freeway overcrossing.

Record of Observations: January 14, 2016, 7 pm.
Weather Conditions: Clear, Waxing Crescent

Receptor Site R3-a is located at the north boundary of West 8th Street, adjacent to the east side of the State Route 110 North overpass bridge. This site is immediately south and west of the Fig at 7th Shopping Center parking structure to the east of the north bound freeway on ramp lane.

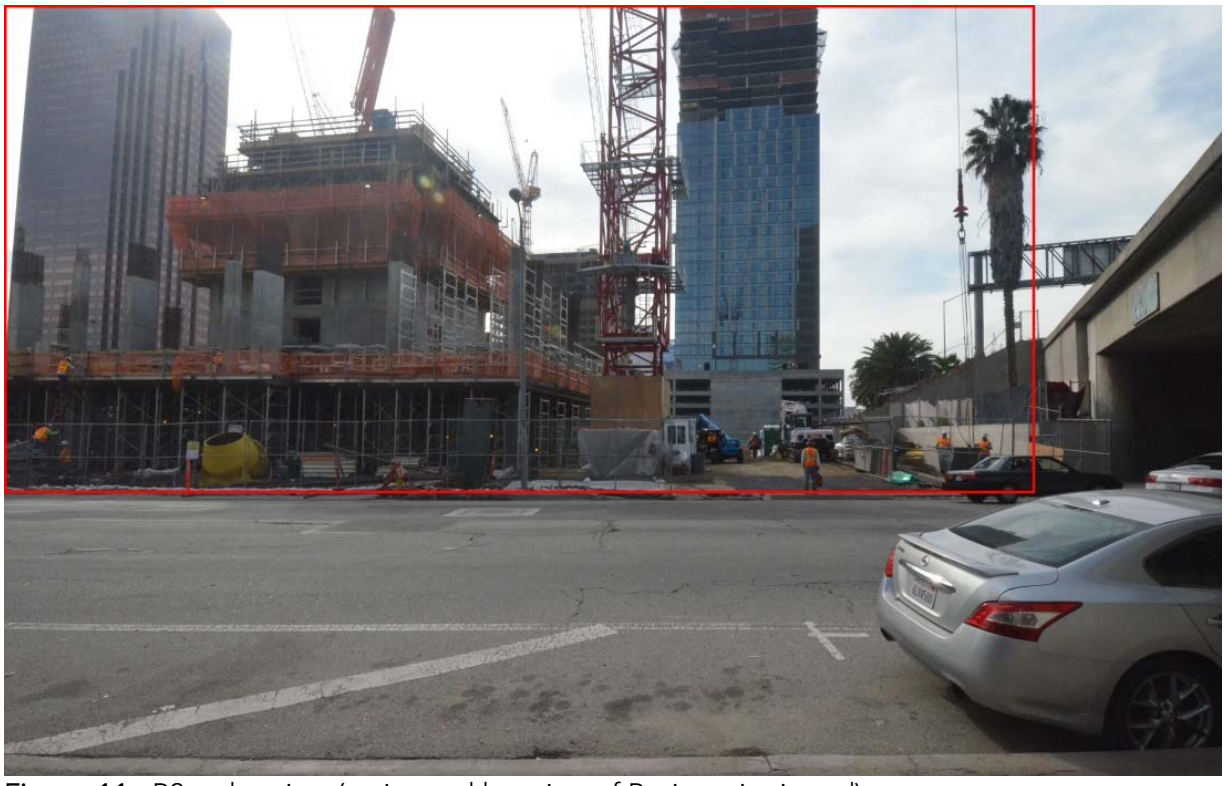


Figure 11: R3-a day view (estimated location of Project site in red)

The primary source of light in this area is the overhead freeway light poles from the overpass

above West 8th Street, which provide area illumination at the 8th street sidewalk. The horizontal illuminance is 0.24 fc, which is low in comparison to other adjacent areas of West 8th Street.

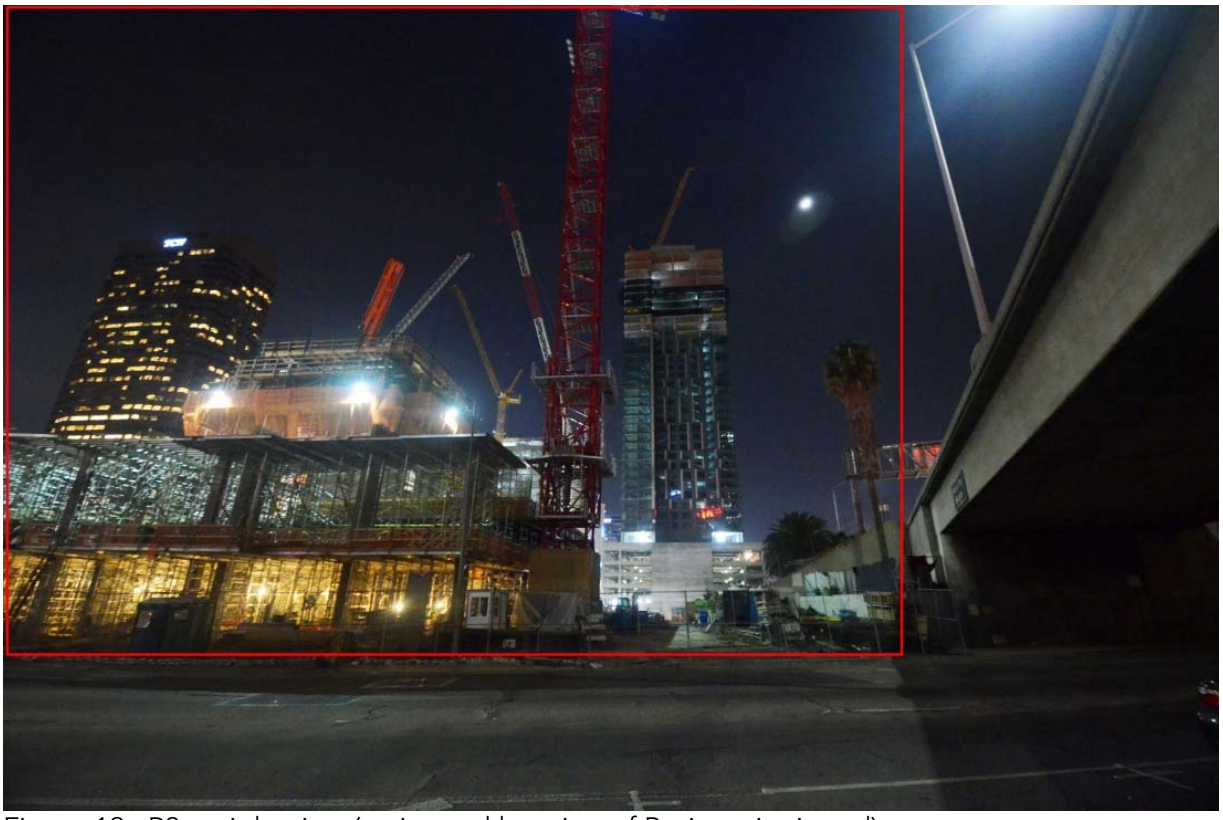


Figure 12: R3-a night view (estimated location of Project site in red)

As shown in Figure 11 and Figure 12, Receptor Site R3-a has direct view of the Project site with no obstructions. This Receptor Site is located adjacent to the edge of an unlit overpass under the freeway, which creates a fairly low ambient brightness. This area has limited pedestrian foot traffic. The high intensity light sources include LA City street lights (3648 cd/m^2), and the temporary site flood lighting mounted to buildings and cranes ranging from 1328 cd/m^2 to 143 cd/m^2. The average ambient luminance of three measured surfaces is low (0.5 cd/m^2), and is expected as the area is primarily lit by temporary project lighting and located next to a dark unlit underpass. The average of all measured luminance (excluding the temporary construction lighting) is 666 cd/m^2.

6.5-6 Receptor Site R3-b:

North of the northeast corner of the Project site at the intersection of West 8th Street and Francisco Street to maximize the view into the Project at a minimum distance.

Record of Observations: January 14, 2016, 7 pm.
Weather Conditions: Clear, Waxing Crescent

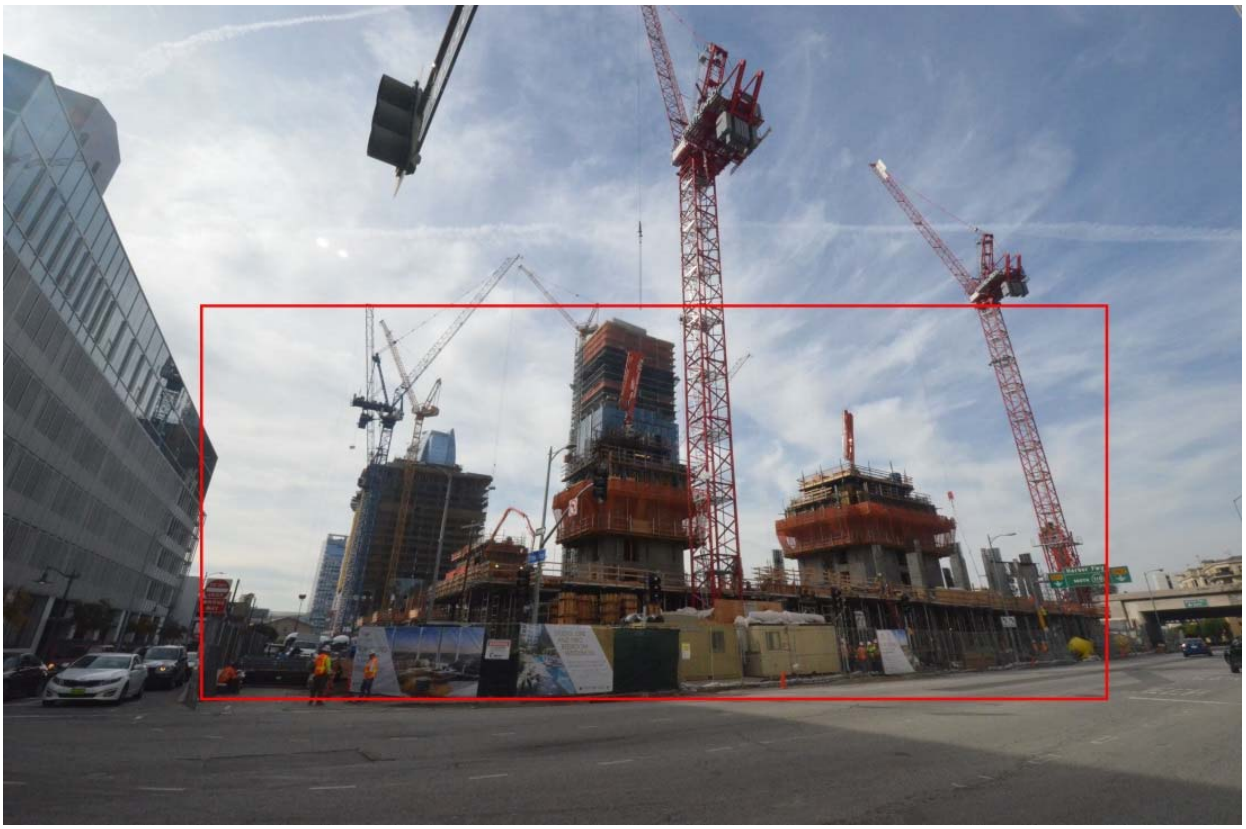


Figure 13: R3-b day view (estimated location of Project site in red)

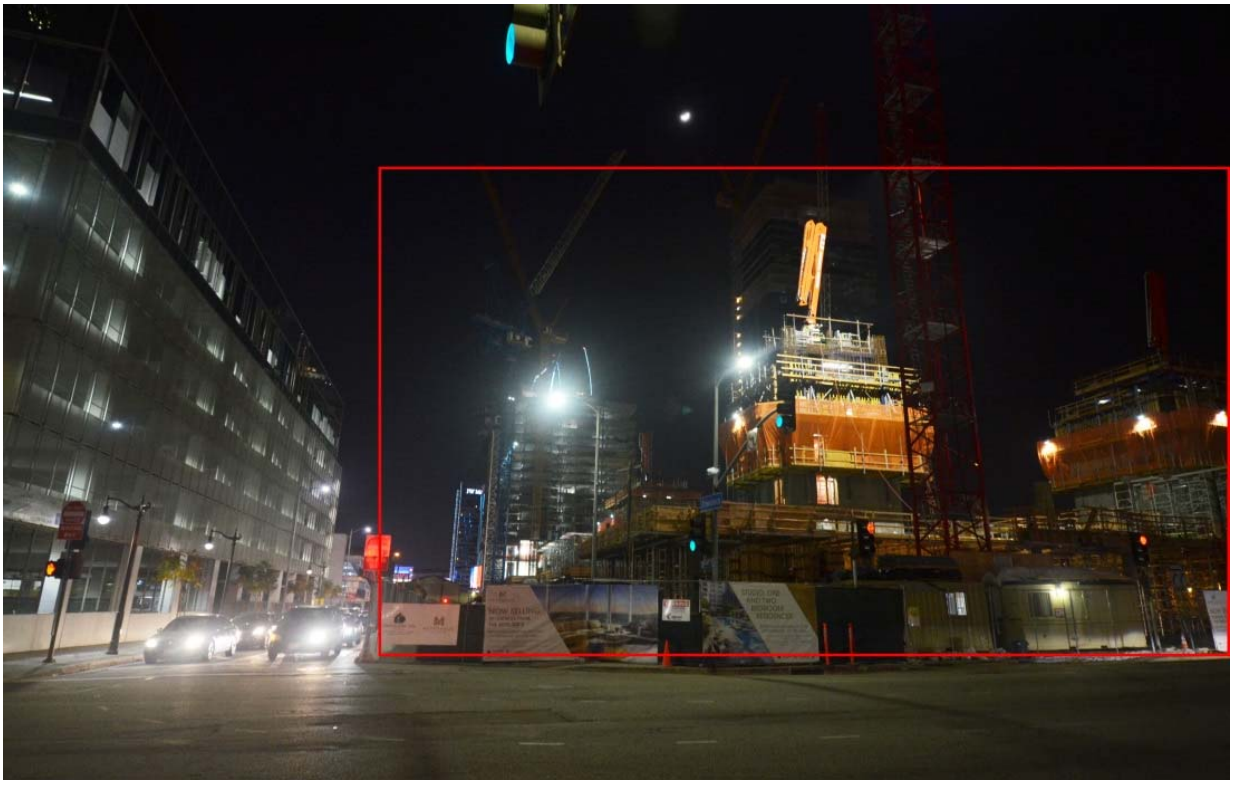


Figure 14: R3-b night view (estimated location of Project site in red)

Receptor Site R3-b is located at the north boundary of West 8th Street, adjacent to the Fig at 7th Shopping Center Parking Structure located at 945 W 8th Street. This area is primarily lit by the overhead roadway lighting along West 8th street with additional light coming from the existing parking structure along the north side of West 8th and new parking structure at the southeast corner of Francisco St and West 8th Street. The horizontal illuminance is high at 1.44 fc, which is appropriate at this 4 lane intersection.

As shown in Figure 13 and Figure 14, Receptor Site R3-b has direct view of the Project site with no obstructions. This location has fairly high brightness since it is located at a busy intersection and adjacent to a dense urban setting. The light sources with the highest intensity are the City of LA street lights (5879 cd/m^2), temporary site flood lighting mounted to buildings and cranes ranging from 6663 cd/m^2 to 3792 cd/m^2. The average ambient luminance of three measured surfaces is low (0.8 cd/m^2), and is expected as the Project Site and adjacent areas are all fairly well lit. The average of all measured luminance (excluding the temporary construction lighting) is 1417 cd/m^2.

6.5-7 Receptor Site R4-a:

West of the Project Site at east boundary of Francisco Street right of way

Record of Observations: January 14, 2016, 7 pm.
Weather Conditions: Clear, Waxing Crescent

Figure 15: R4-a day view (estimated location of Project site in red)

Receptor Site R4-a is located at the east boundary of Francisco Street, midblock between West 8th Place and James M. Wood Boulevard, adjacent to a commercial parking garage building. City

street lights mounted along the western boundary of Francisco Street illuminate the roadway. The east sidewalk is well illuminated by light fixtures mounted on the parking garage exterior. The measured illuminance at the sidewalk along the east side of Francisco Street is high at 1.73 fc horizontal, and vertical illuminance of 0.36 fc.

As shown in Figure 15 and Figure 16, Receptor Site R4-a has a direct view of the Project site with no obstructions. The luminance at temporary site flood lighting mounted to buildings and cranes is measured at 5624 cd/m^2 to 1762 cd/m^2. The City Street light luminance is measured at 3,480 cd/m^2. The average minimum luminance of three different surface areas is low at 2.1 cd/m^2. The average of all measured luminance (excluding the temporary construction lighting) is 449 cd/m^2.

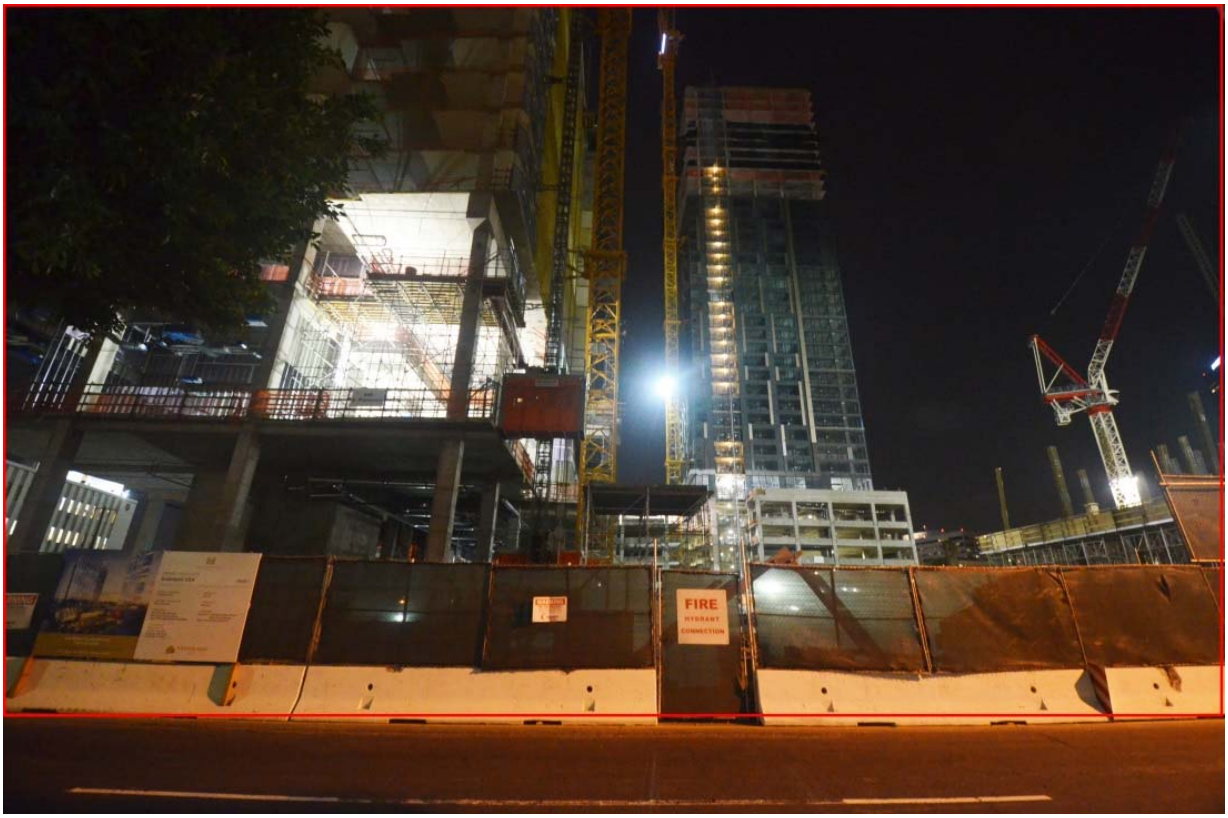


Figure 16: R4-a night view (estimated location of Project site in red)

6.5-8 Receptor Site R4-b:

East of the Project Site, Receptor Site R4-b is located at the east edge of the Figueroa Street right of way, south of the West 9th Street intersection at the existing residential property.

Record of Observations: January 14, 2016, 7 pm.
Weather Conditions: Clear, Waxing Crescent

Receptor Site R4-b is located at the southeast corner of South Figueroa and 9th Street, adjacent to the street light pole at the intersection. Receptor site is located along a busy street and primarily lit by tall LED street light poles. The horizontal illuminance is 2.80 fc, which is high and applicable for a high traffic area.

As shown in Figures 17 and 18, the view to the Project site from Receptor Site R4-b is obstructed at the street level by buildings and trees along the north side of James M. Wood Blvd. The east

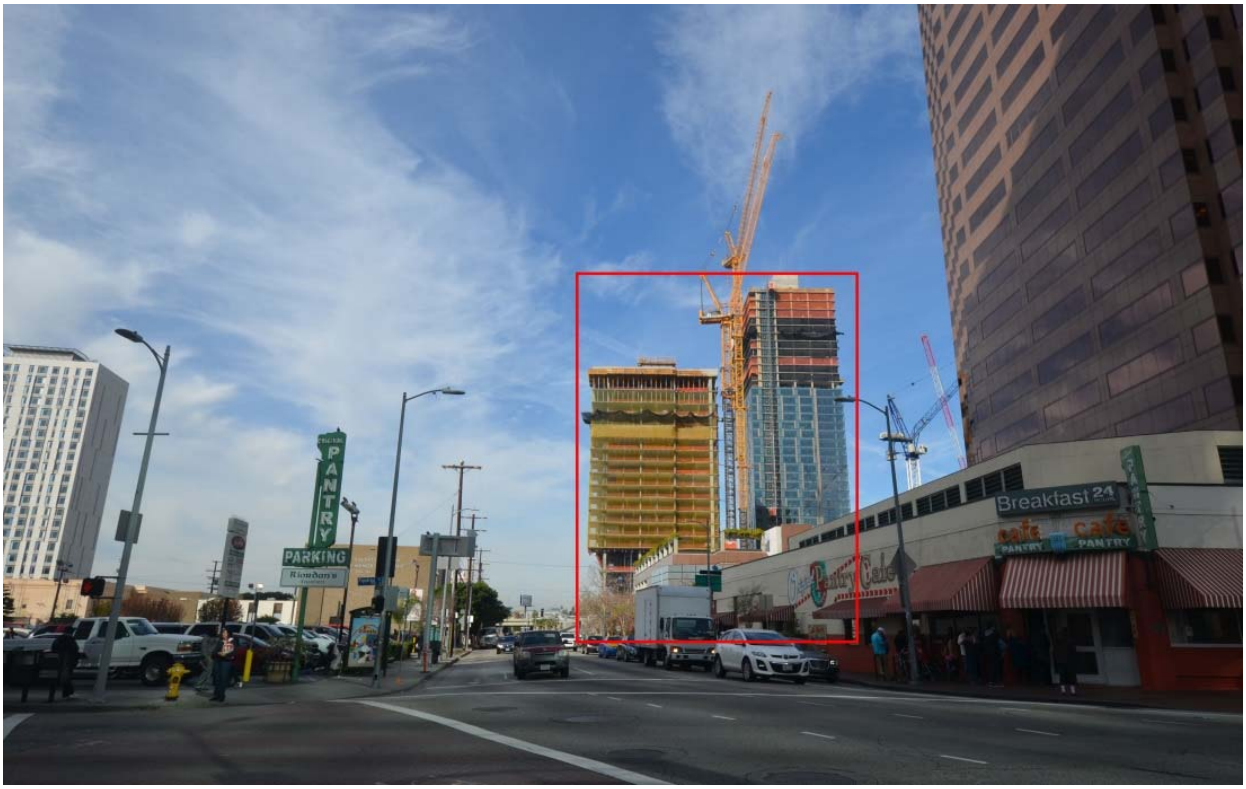


Figure 17: R4-b day view (estimated location of Project site in red)

Project façade will not be visible from Figueroa Street due to the street trees along James M. Wood Blvd. and the buildings east of the James M. Wood Blvd. and Francisco St. intersection. The Project illuminated signs mounted at the parking podium level will be partially visible, with partial obstruction from street trees and the building to the east of the Project on James M. Wood Blvd. The primary high intensity light source are the street lights (24,490 cd/m^2), Café Breakfast sign (73.99 cd/m^2), temporary construction lighting (541.9 cd/m^2), Original Pantry Café wall (52.36 cd/m^2), and freeway billboard sign (43.58 cd/m^2). The average ambient luminance of 5 different areas is high (3.3 cd/m^2) due to the many adjacent lit building surfaces and roadways. The average of all measured luminance (excluding the temporary construction lighting) is 2473 cd/m^2.

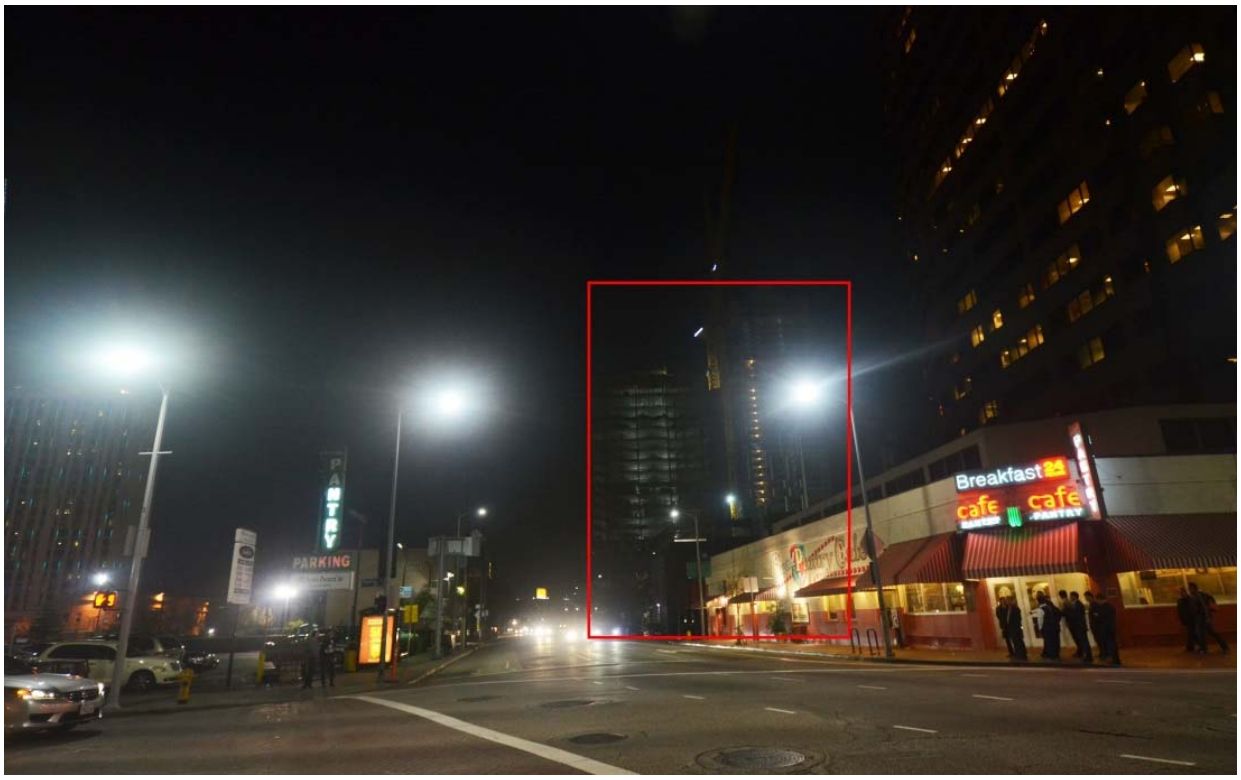


Figure 18: R4-b at night (estimated location of Project site in red)

6.6 Analysis of Roadway Receptor Site Survey Data

The observations of existing lighting conditions at the locations where lighting is under review at the roadway receptor sites are summarized below in relation to the evaluation factors established in Section 5, Significance Threshold:

The California Vehicle Code requirements identified in section 5 above indicate the Project would have a significant impact with regard to artificial light or glare if:

- The Project generates light intensity levels greater than 1,000 times the minimum measured brightness in the driver's field of view, except when the minimum values are less than 10 footlamberts (fL).[12]
- At minimum values less than 10 footlamberts (fL) the source brightness exceeds 500 fL plus 100 times the angle, in degrees, between the driver's field of view and the light source.

The existing lighting conditions surrounding the Project site are analyzed at eleven Receptor site locations within the State Route-110 (Harbor Freeway) to the west of the Project site to evaluate the most critical, high speed, driving conditions where the Project illuminated signs may be visible. At each Receptor site the existing conditions are described with respect to the visibility of the Project illuminated signs within the driver's field of view, the distance from the Receptor

[12] *The driver's field of view from the center of the roadway plus 10 degrees."*

site to the Project illuminated signs, the resulting brightness of the Project illuminated signs when viewed from the Receptor site location, and the existing lighting surrounding the Receptor site.

Table 5: Roadway Receptor Site Observations

Receptor Site	Distance to Project Site		A_o Field of View	Context	Coverage	Notes
	ft	m	degrees			
F1-a	1394	424.9	10	20%	2%	No View of Project Signs
F1-b	1042	317.6	10	30%	3%	Limited View of Project Signs
F1-c	904	275.5	10	40%	4%	Limited View of Project Signs
F1-d+176'	885	269.7	10	40%	4%	Limited View of Project Signs
F1-d	756	230.4	10	45%	5%	Limited View of Project Signs
F1-e	789	240.5	10	50%	5%	Project Signs Visible
F2-a	1435	437.4	10	20%	2%	Limited View of Project Signs
F2-b	1130	344.4	10	30%	1%	Limited View of Project Signs
F2-c	920	280.4	12	35%	3%	Limited View of Project Signs
F2-d	640	195.1	14	40%	5%	Limited View of Project Signs

As summarized in Table 5 above, the Project illuminated signs will have limited visibility within the driver's field of view along the northbound and southbound State Route-110 (Harbor Freeway). At the locations where the Project illuminated signs are highly visible, such as Receptor site F1-e, the Project illuminated signs are located beyond the driver's field of view (drivers line of sight plus 10 degrees). The distance from the Receptor sites to the Project illuminated signs are greater than 750 feet, which will significantly reduce the brightness of the signs at the Receptor site locations.

6.7 Observations from Roadway Receptor Sites

The observations below summarize the existing lighting conditions within the roadways adjacent to the Project site. Night photos and measured existing illuminance are not included for the Roadway Receptor sites due to the high speed of vehicles on the freeway and the variations in lighting conditions resulting from vehicle headlights.

6.7-1 Receptor Site F1-a:

South of the Project Site, Receptor Site F1-a is located within the right lane of the northbound two lane divide of the northbound State Route-110 (Harbor Freeway).

Record of Observations: January 22, 2016, 8 am
Weather Conditions: Clear, Waxing Gibbous

Receptor Site F1-a is located to the south of the Project near the beginning of the two lane divide leading to the James M. Wood Blvd & 9th Street Off Ramp. Receptor Site F1-a is located to evaluate the Project illuminated signs visible and within the driver's field of view prior to the Downtown Exits portion of the Freeway.

As shown in Figure 19 the Project is visible in the distance, however the Project illuminated signs are not visible due to obstructions from trees and structures along the eastern edge of the freeway. Distance to Project illuminated signs is approximately 1180 ft. Distance to James M. Wood Boulevard & 9th Street Off Ramp Sign #3 is approximately 825 ft.

Freeway lighting conditions include pole mounted roadway light fixtures and metal halide flood lights on the freeway overhead sign #3.

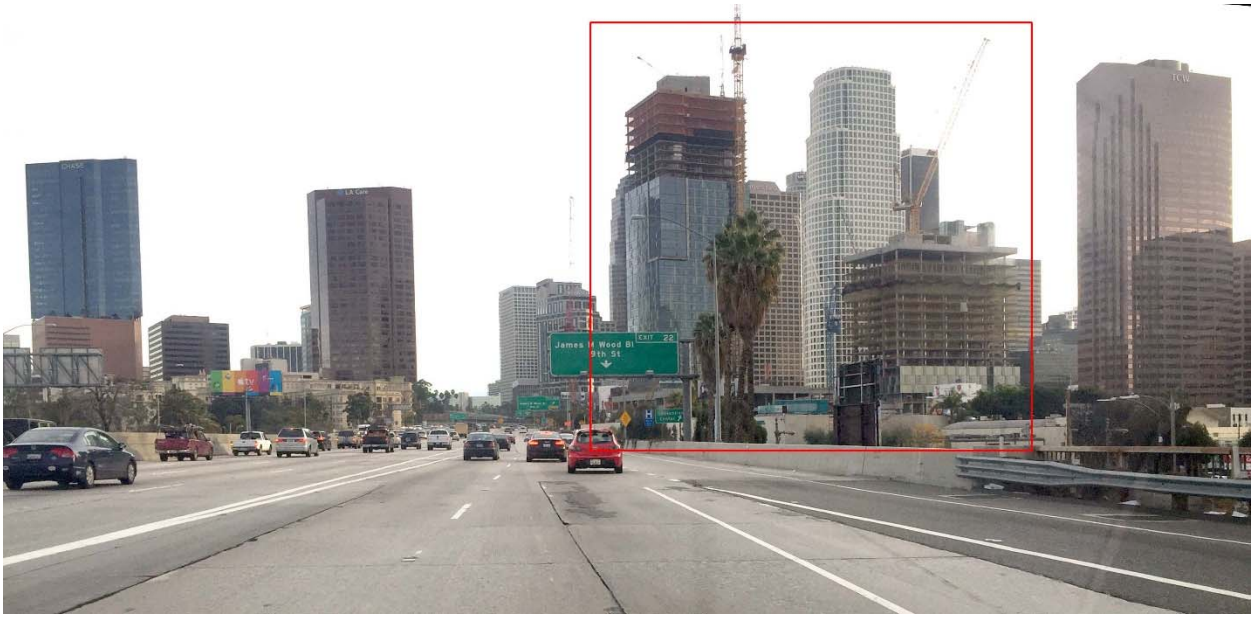


Figure 19: F1-a day view (estimated location of Project site in red)

6.7-2 Receptor Site F1-b:

South of the Project Site, Receptor Site F1-b is located at the far right exit lane, immediately south of freeway sign #3 James M. Wood Blvd. & 9th St, within the divide lanes parallel to the State Route-110 (Harbor Freeway) northbound.

Record of Observations: January 22, 2016, 8 am

Weather Conditions: Clear, Waxing Gibbous

Figure 20: F1-b day view (estimated location of Project site in red)

Receptor Site F1-b is located south of the James M. Wood Blvd. & 9th Street Off Ramp Sign #3 and adjacent to the non illuminated directional signs (Convention Center #4 and Hospital #5). As shown in Figure 20 the view of the Project illuminated signs are obstructed by landscape and structures in the foreground and are not visible from Receptor site F1-b. Distance to the Project illuminated signs is approximately 919 feet. Distance to the freeway sign #7 is approximately 560 feet.

Freeway lighting conditions include pole mounted roadway light fixtures and metal halide uplights on the freeway overhead signs #3 and #7.

6.7-3 Receptor Site F1-c:

South of the Project Site, Receptor Site F1-c is located at the far right lane within the two lane divide parallel to the northbound State Route-110 (Harbor Freeway), north of freeway signs #3 and south of freeway sign #7.

Record of Observations: January 22, 2016, 8 am
Weather Conditions: Clear, Waxing Gibbous

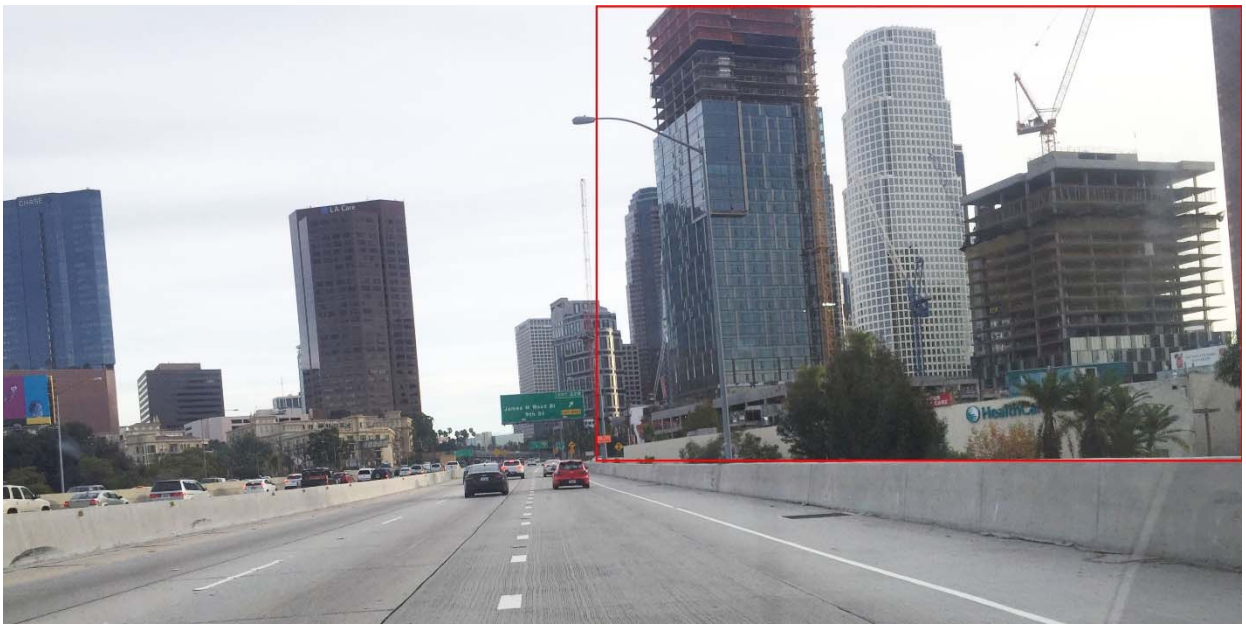


Figure 21: F1-c day view (estimated location of Project site in red)

Figure 21 demonstrates the visibility of the Project and the partial visibility of the Project illuminated signs from Receptor site F1-c. The Project illuminated signs at the west and south façade will be partially visible from F1-c. Large portions of the podium level Project illuminated signs are obstructed by buildings and landscape to the south and west of the Project.

Distance to Project illuminated signs is approximately 736 ft. Distance to James M. Wood Boulevard & 9th Street Off Ramp Sign #7 is approximately 306 ft.

Freeway lighting conditions include pole mounted roadway light fixtures and metal halide flood lights on the freeway overhead sign #7.

6.7-4 Receptor Site F1-d + 176ft:

South of the Project Site, Receptor Site F1-d+176' is located within the James M Wood Blvd 9th St exit lane parallel to the northbound State Route-110 (Harbor Freeway), 176 feet away from Receptor Site F1-d.

Record of Observations: January 22, 2016, 8 am
Weather Conditions: Clear, Waxing Gibbous

This location is at the distance 2 seconds away from the exit decision point at a speed of 60 miles per hour (176 feet), which allows 2 seconds to make any lane changes upon seeing the second James M Wood Blvd 9th St. off ramp sign #7.

At Receptor site F1-d+176' the Project illuminated signs are visible to the right of the driver's field of view. The distance to the Project illuminated signs is approximately 680 feet. The distance to freeway sign #7 is approximately 306 feet.

Freeway lighting conditions include pole mounted roadway light fixtures and metal halide flood lights on the freeway overhead sign #7.

Figure 22: F1-d + 176ft day view (estimated location of Project site in red)

6.8 Receptor Site F1-d:

South of the Project Site, Receptor Site F1-d is located within the exit lane of the James M. Wood Boulevard 9th Street exit, parallel to the State Route-110 (Harbor Freeway).

Record of Observations: January 22, 2016, 8 am
Weather Conditions: Clear, Waxing Gibbous

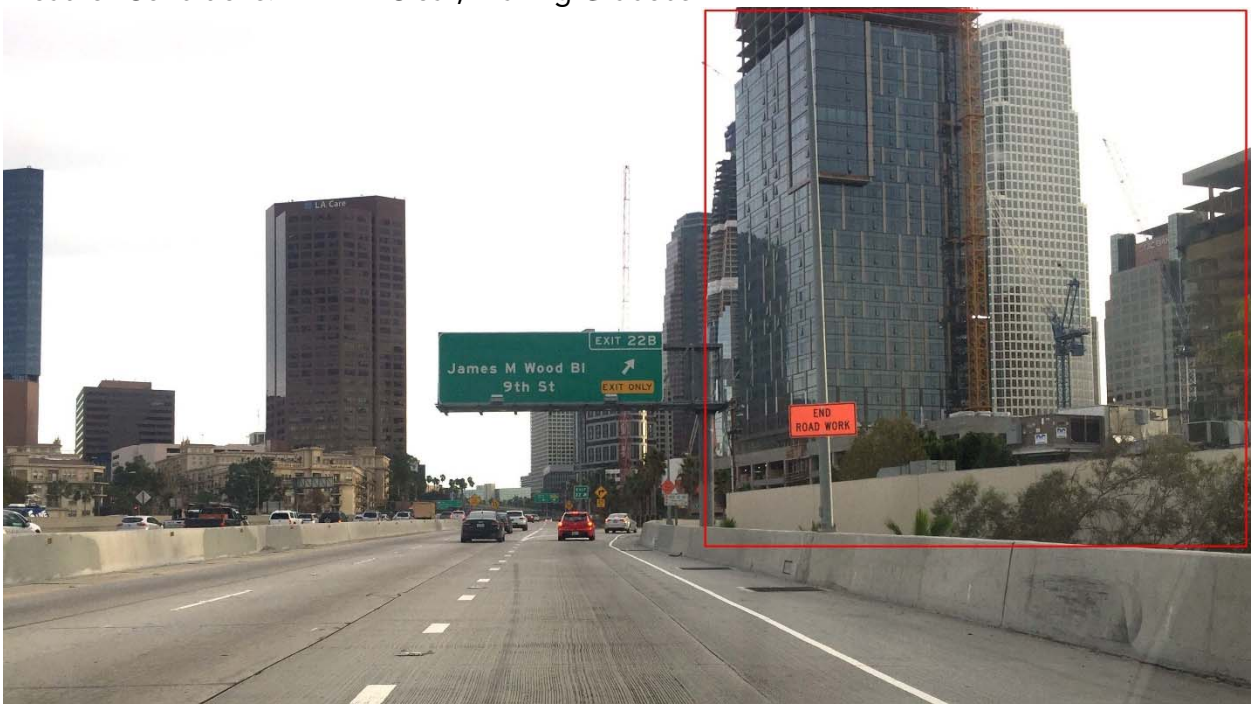


Figure 23: F1-d day view (estimated location of Project site in red)

Receptor Site F1-d is approximately 127 feet south of freeway sign #7 and has a direct view of the Project Illuminated signs at the Project west and south facade. The driver's view of the Project illuminated signs is partially obstructed by landscape and buildings in the foreground south and west of the Project site.

Non-illuminated Caution sign #8 and Exit sign are visible beyond the freeway exit ramp and within the driver's field of view.

Existing lighting conditions include roadway light poles and freeway sign #7 includes two metal halide floodlights for sign illumination.

6.8-1 Receptor Site F1-e:

South of the Project Site, Receptor Site F1-e is located within the exit lane of the James M. Wood Boulevard 9th St off ramp parallel to the State Route-110 (Harbor Freeway), immediately south of freeway sign #7.

Record of Observations: January 22, 2016, 8 am
Weather Conditions: Clear, Waxing Gibbous

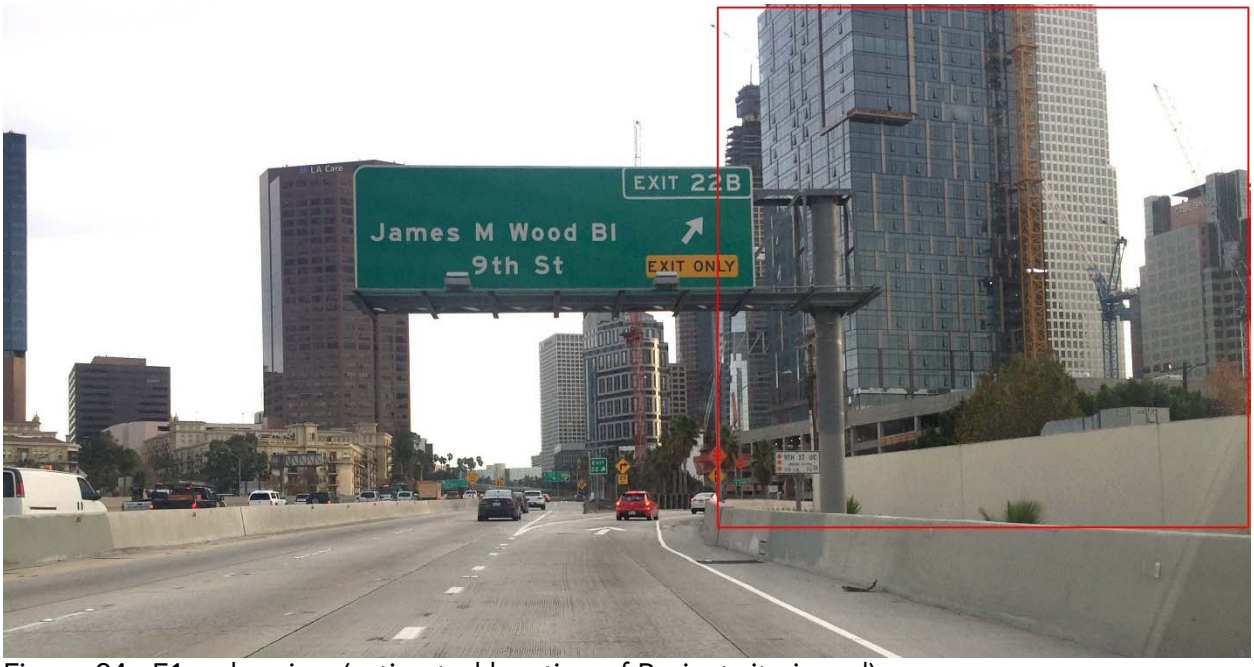


Figure 24: F1-e day view (estimated location of Project site in red)

Receptor Site F1-e is located within the exit lane as the driver passes below the James M. Wood Boulevard 9th St freeway sign #7. Three non-illuminated caution signs within the exit ramp are visible from F1-e including Caution Ahead sign #8, Signal Ahead sign #10, and Exit (see Figure 24).

Existing lighting conditions include roadway light poles and freeway sign #7 includes two metal halide floodlights for sign illumination.

6.8-2 Receptor Site F2-a:

North of the Project Site, Receptor Site F2-a is located on State Route-110 (Harbor Freeway) Southbound at the far left lane before passing the West 7th Street overcrossing.

Record of Observations: January 21, 2016, 5 pm
Weather Conditions: Clear, Waxing Gibbous

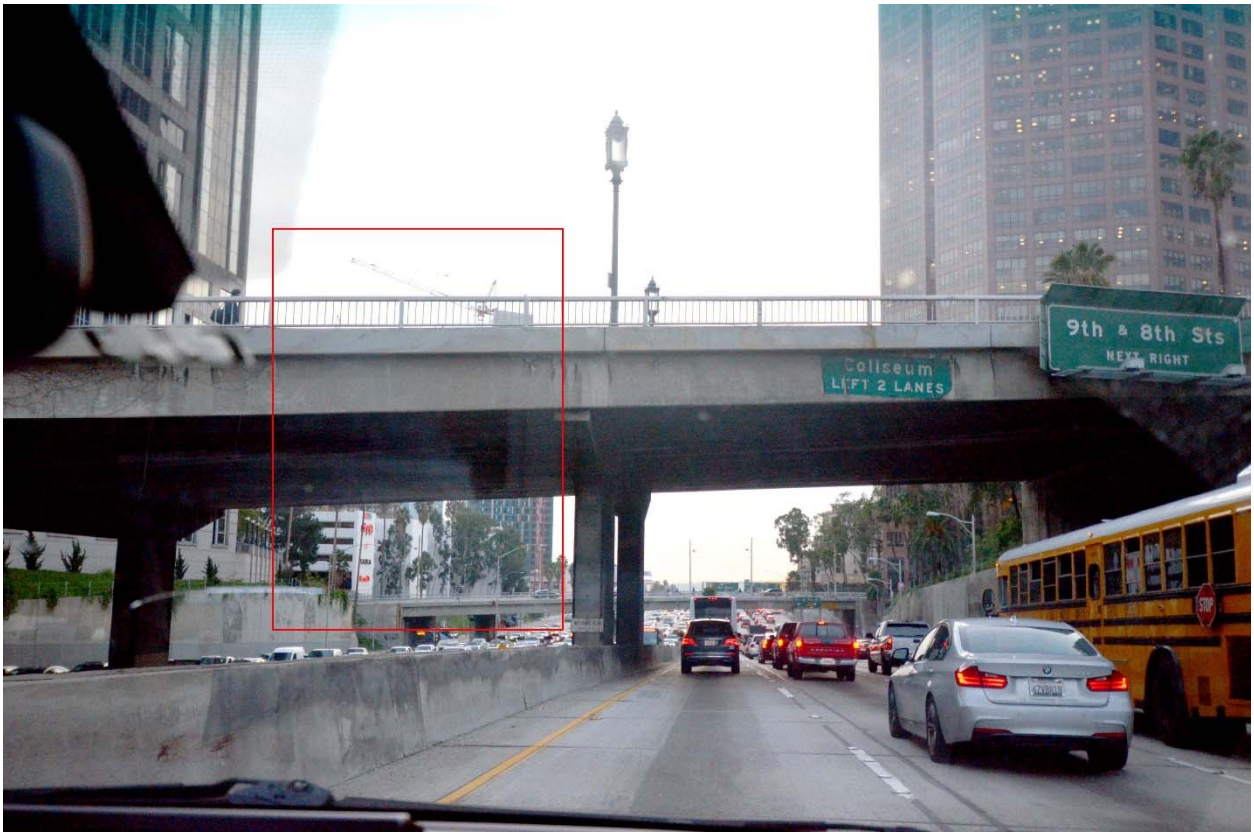


Figure 25: F2-a day view (estimated location of Project site in red)

Receptor F2-a is located in the far left lane of the southbound State Route-110 (Harbor Freeway) north of the Wilshire Boulevard overcrossing. The Project illuminated signs are within the drivers 10 degree field of view from Receptor site F2-a, however the podium level Project illuminated signs are obstructed by the West 7th Street overcrossing structure and freeway dividing walls and the higher elevation signs are blocked by the Wilshire Boulevard overcrossing (see Figure 25).

Existing lighting conditions include roadway light poles along the freeway, street lights at Wilshire Boulevard overcrossing, and two metal halide flood lights on 9th & 8th Streets freeway sign.

6.8-3 Receptor Site F2-b:

North of the Project Site, Receptor Site F2-b is located in the left southbound lane of the State Route-110 (Harbor Freeway), at the position where the Project illuminated signs are within the driver's field of view.

Record of Observations: January 21, 2016, 5 pm
Weather Conditions: Clear, Waxing Gibbous

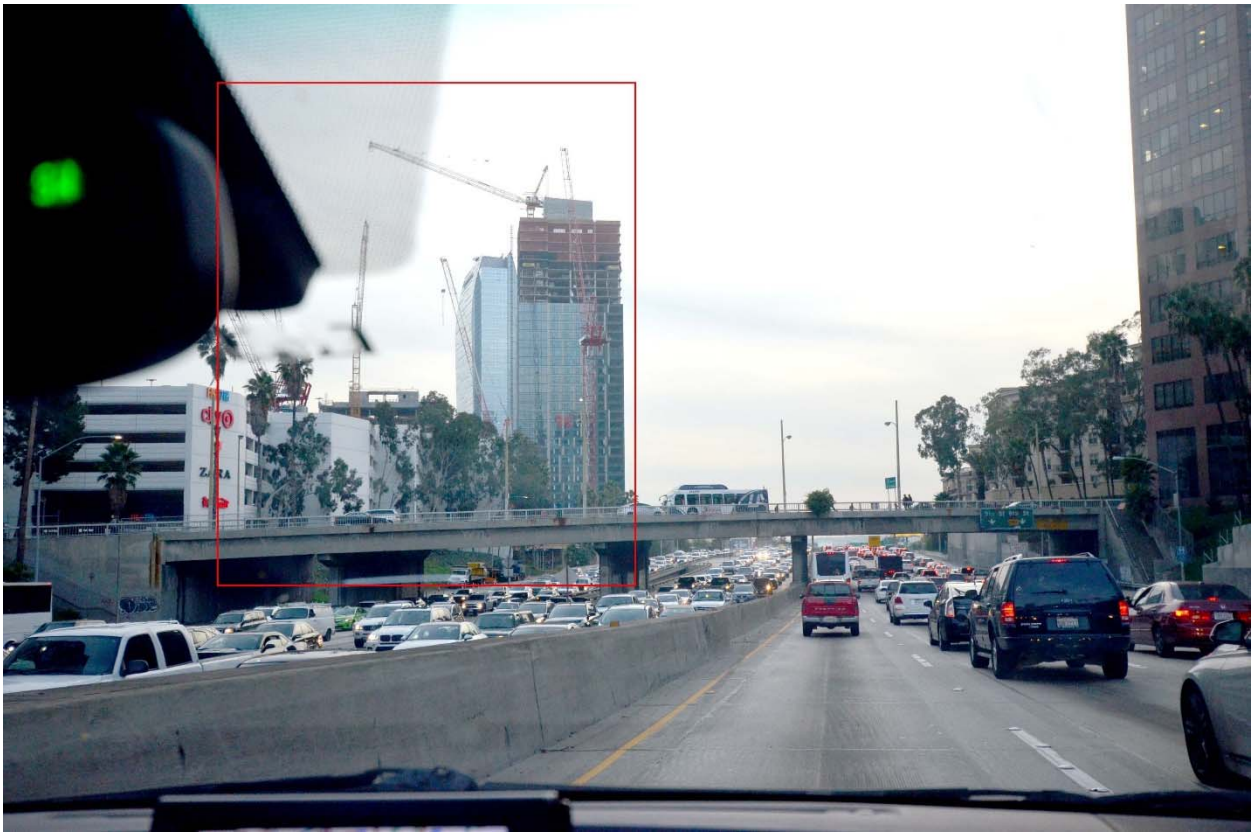


Figure 26: F2-b day view (estimated location of Project site in red)

Receptor F2-b is located within the far left lane of the State Route-110 (Harbor Freeway) Southbound south of the Wilshire Boulevard overcrossing. The Project site is within the drivers 10 degree viewing angle from the centerline of the left hand lane roadway. The view to the podium level Project illuminated signs is obstructed at this location by the West 7th Street overcrossing bridge.

Existing lighting conditions include pole mounted roadway lights along the freeway and pole mounted street lights at Wilshire Boulevard overcrossing and West 7th Street overcrossing, and one metal halide up light on 9th & 8th Streets freeway sign.

6.8-4 Receptor Site F2-c:

North of the Project Site, Receptor Site F2-b is located on State Route-110 (Harbor Freeway) Southbound within the far left lane, north of the West 7th Street overcrossing, where the view to the Project is no longer obstructed.

Record of Observations: January 21, 2016, 5 pm
Weather Conditions: Clear, Waxing Gibbous

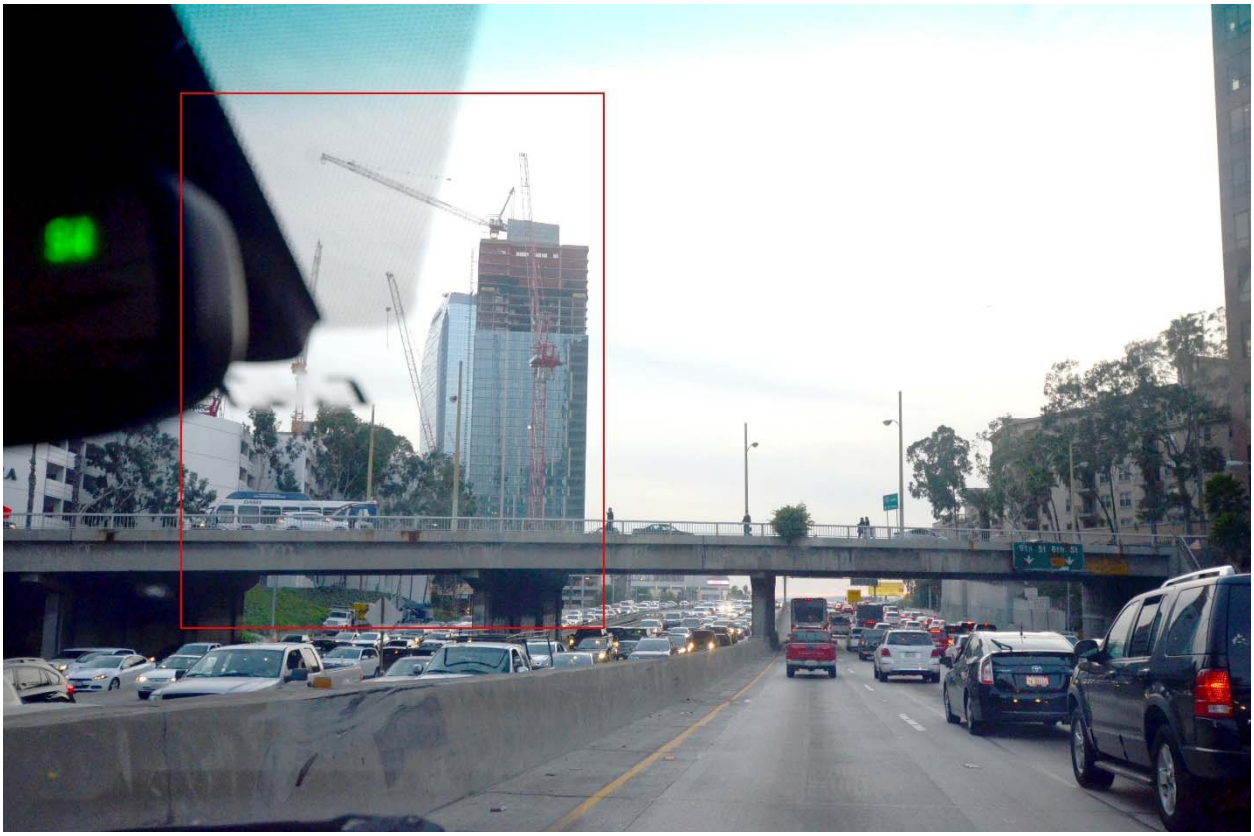


Figure 27: F2-c day view (estimated location of Project site in red)

Receptor F2-c is located in the far left lane of the State Route-110 (Harbor Freeway) Southbound and is the first point in which the driver will begin to see the corner of the Project podium structure. However, at this location the Project site and illuminated signs are to the left of the driver's field of view 10 degree viewing angle from the center line of the driving lane.

Existing lighting conditions include pole mounted roadway lights along the freeway and pole mounted street lights at Wilshire Boulevard overcrossing and West 7th Street overcrossing, and one metal halide flood light on 9th & 8th Streets freeway sign.

6.8-5 Receptor Site F2-d:

North of the Project Site, Receptor Site F2-d is located on State Route-110 (Harbor Freeway) Southbound at the far left lane, as the driver passes under the West 8th Street overcrossing with a direct view of the Project.

Record of Observations: January 21, 2016, 5 pm
Weather Conditions: Clear, Waxing Gibbous

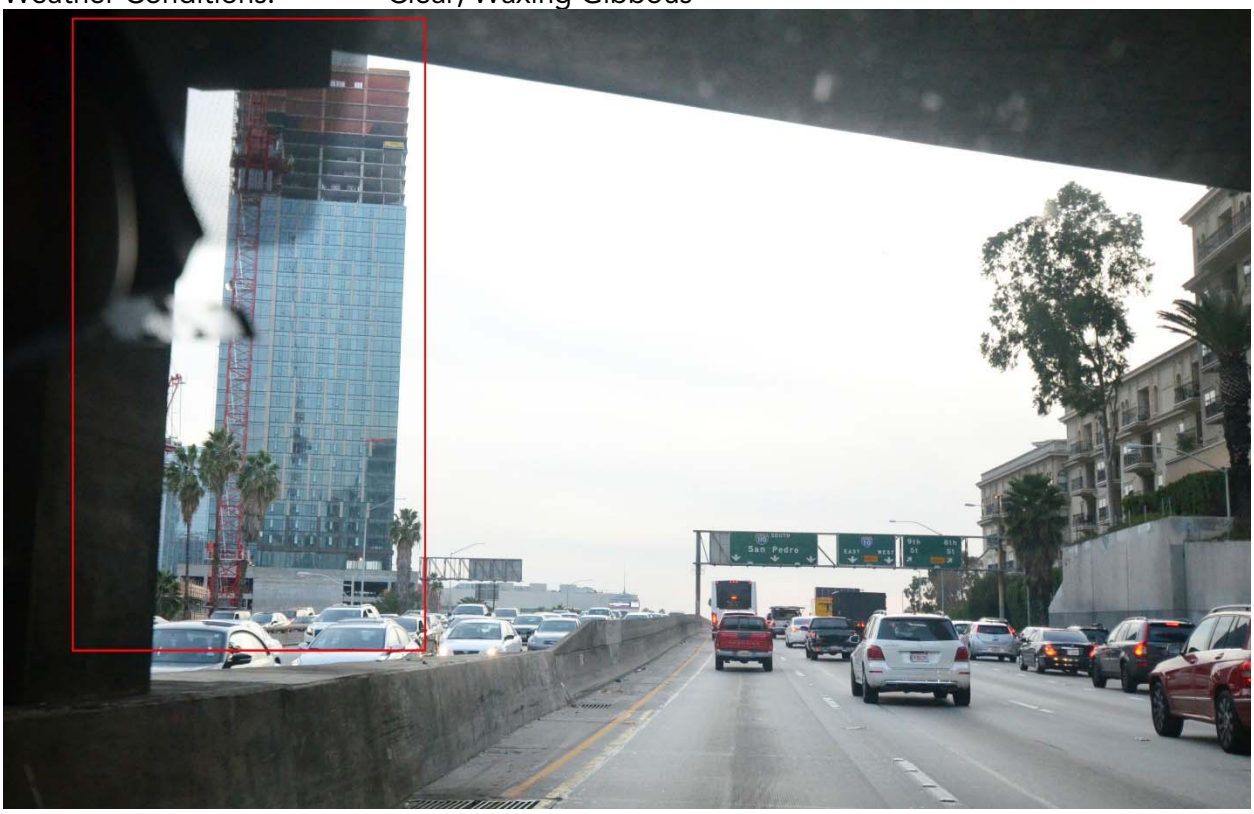


Figure 28: F2-d day view (estimated location of Project site in red)

Receptor F2-d is located on the far left lane of the southbound State Route-110 (Harbor Freeway) and the driver has a clear view of the Project podium level with slight obstructions from cars and trees. However, the Project site is beyond the drivers field of view 10 degree viewing angle from the centerline of the roadway.

Existing lighting conditions include pole mounted roadway lights along the freeway and pole mounted street lights at Wilshire Boulevard overcrossing and West 7th Street overcrossing, and metal halide flood light freeway sign #13.

7. Environmental Impact Assessment

7.1 Methodology

This Report examines whether the Project illuminated signs would significantly impact areas beyond the Project Site. The analysis includes a comparison of existing conditions surrounding the Project Site, which are described through field surveys (See Section 6 above), to the future lighting conditions. Future conditions are assessed through the use of a computer model to predict the amount and direction of light, as discussed in Section 7.2-1 below. The model calculations are presented to predict lighting at the location where lighting is analyzed to

describe the Project performance relative to the significance thresholds identified in Section 5 above.

7.1-1 Existing Conditions Analysis

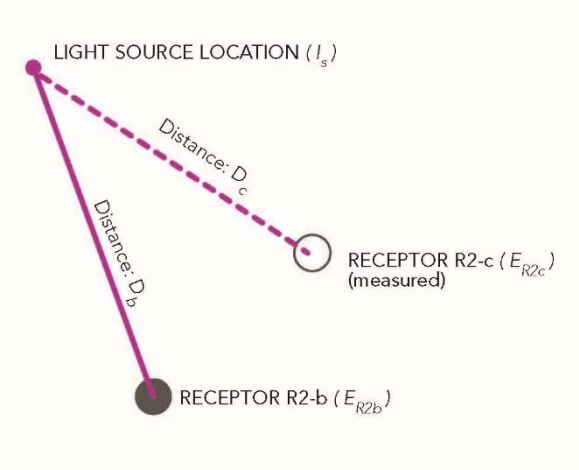
Existing conditions lighting observations were conducted following recommended practice procedures defined by the IESNA in RP-33-00 Lighting for Outdoor Environments, TM-10-00 Addressing Obtrusive Light (Urban Sky Glow and Light Trespass) in Conjunction with Roadway Lighting, and TM-11-00 Light Trespass: Research, Results and Recommendations. Field illuminance and luminance measurements were conducted to accurately document all existing incident and visible light at each receptor site location.

Incident light can be understood as a vector of luminous flux moving through space. As the vector (light) is incident upon a surface, the intensity of the resulting illuminance will vary depending upon the relative orientation of the vector to the surface. The greatest illuminance will result when the surface and vector are perpendicular. The least illuminance will result when the surface and vector are parallel. In the field conditions, where there are multiple sources of light originating from varied positions, illuminance measurements are recorded horizontally with the photosensor facing up at 3 feet above grade, and vertically with the photosensor facing the Project. These measurements document the total horizontal illuminance received at the receptor site as well as the direction and intensity of light converging on the receptor site from direction of the Project Site. Since the receptor sites are located on the opposite side of the public right of way from the Project Site, the vertical illuminance represents a plane perpendicular to the light sources. Under these conditions, there is little difference between the vertical and perpendicular plane and the vertical plane analysis that is conducted in this Study would be equal to or greater than the values from a precisely perpendicular plane analysis would provide. Therefore, this study utilizes a vertical and horizontal illuminance analysis. The existing Illuminance is measured with a Minolta Illuminance meter.

The existing luminance is measured from the Receptor site to light sources and surfaces within the field of view toward the Project site from the Receptor site. This existing conditions luminance data is measured with a Minolta LS-100 Luminance meter with procedures consistent with best practices for field measurement of luminance as per IESNA standards. The LS-100 meter utilized by Francis Krahe & Associates, Inc. reports luminance data in either candelas per square meter or footlamberts (fL). All existing luminance data measured and reported in this report are recorded as cd/m^2.

Figure 29: Minolta LS-100 meter

At inaccessible locations the calculated values are based on the inverse square of the distance as per the equation below:



$$E_{R2c} = I_S / D_c^2 \qquad E_{R2b} = I_S / D_b^2$$

$$E_{R2c} \times D_c^2 = E_{R2b} \times D_b^2 = I_S$$

$$E_{R2b} = E_{R2c} \times (D_c / D_b)^2$$

Figure 30: Calculated illuminance at distance

The above methodology is used to determine illuminance or luminance when distances *Da* and *Db* are known, and illuminance or luminance is measured at location R2-c.

7.1-2 Analysis of Project Illuminated Signs

The analysis of the Project illuminated signs includes evaluation of the illuminance light trespass from the Project illuminated signs at the Receptor Sites, and an evaluation of glare from the Project illuminated signs visible at Receptor Sites or Roadway Receptor Sites.

This technical analysis incorporates the performance criteria proposed by the Applicant for the proposed Sign District e, including the limits to sign luminance. In order to present the most conservative, worst case analysis with respect to light trespass and glare, the analysis assumes that all signs will continuously emit 600 cd/m^2 with all white light, the maximum value proposed for signs within the Sign District (see Appendix A). The actual sign luminance will be defined by the specific light sources and materials utilized by the Applicant to comply with the requirements of the Sign District. Many of the Project signs will generate far lower luminance than the lighting that has been modeled, thus, making this a conservative analysis. In addition, the computer model calculations include the public art, which is not part of the Sign District, and which has been deemed a Public Art Installation under the Mural Ordinance by the Department of Cultural Affairs. The analysis further assumes that the public art will continuously emit 600 cd/m^2 with all white light.

Light Trespass

Illuminance light trespass at the Receptor Sites is calculated through the illumination modeling software program AGI32. This software utilizes the 3-dimensional architectural computer model, including building dimensions and exterior materials, in conjunction with the Project sign plan and specifications to generate an accurate prediction of future illuminance and luminance. The illuminated sign lighting is evaluated with respect to horizontal and vertical illuminance at the Receptor Site locations where lighting is under review.[13]

[13] *See Note 2, above.*

For the analysis of light trespass at the residential properties, the illuminance is calculated at the review location within a 116 feet tall vertical plane at 10 feet on center with the exception of vertical plane 2-1 at 66 feet (height of Medici Apartment Building above freeway). The calculation plane simulates the illumination values (fc) captured by light meters. Figure 31 illustrates the locations where the lighting is under review and where the horizontal and vertical illuminance is calculated to evaluate light trespass at residential properties.

Figure 31: Illuminance calculation vertical planes

Glare

The lighting analysis of the Project illuminated signs includes a review of any potential glare impact to residential properties or to drivers on adjacent roadways. For the residential properties the illuminated signs are evaluated in terms of their maximum luminance and the resulting contrast ratio to the measured existing luminance within the field of view from the Receptor Sites identified in the field survey of existing condition.

Luminance is independent of distance for extended area sources, such as illuminated signs, where the viewing locations are relatively close to the sign and the sign fills a large portion of the field of view. At viewing locations less than 19 times the height or width of the illuminated surface, the sampled area viewed or measured increases with distance, cancelling the inverse square losses. The standard meter for luminance measurement utilizes a 3 degree lens, thus the 3 degree view translates to approximately 19.1 times the height or width dimension. At viewing locations beyond 19 times the height or width the illuminated surface becomes a point source, and the inverse square relationship will again predict the measured luminance or perceived brightness.

Figure 32: Locations where lighting is under review for roadway sign visibility

The Project includes signs with a range of sizes. The Conceptual Sign Plan includes signs dimensions up to 56 feet high or 75 feet wide, and a range of viewing distances from 65 feet to over 1000 feet. The luminance of the largest signs within the Project are analyzed with a constant luminance of 600 cd/m^2 for all viewing distances up to 1000 feet.

The potential roadway glare impacts are analyzed with respect to the Project sign luminance compliance with the California Vehicle Code requirements for both night and day conditions at the Freeway receptor site locations identified in Figure 32. According to California Vehicle Code Section 21466.5, the Project would have a significant impact with regard to artificial light or glare if:

- The Project generates light intensity levels greater than 1,000 times the minimum measured brightness in the driver's field of view, except when the minimum values are less than 10 footlamberts (fL).[14]
- At minimum values less than 10 footlamberts (fL) the source brightness shall not exceed 500 fL plus 100 times the angle, in degrees, between the driver's field of view and the light source.

The roadway glare analysis includes evaluation of the view angle at each freeway receptor site location from the drivers line of sight to the Project illuminated signs to determine the visibility of the Project illuminated signs, and evaluates the luminance of the Project illuminated signs at that location.

7.2 Lighting Analysis

The analysis of the Project illuminated signs includes calculations for illuminance light trespass, and comparisons of luminance to evaluate glare at residential properties and adjacent roadways. Conservatively, the analysis assumed the simultaneous use of all Project illuminated signs at maximum light output of 600 cd/m^2, all white.

7.2-1 Light Trespass Analysis

The light trespass from the Project illuminated signs is evaluated by way of the calculated illuminance (fc) according to the methodology defined above at the Receptor Site locations where lighting is under review. As summarized in Table 6, the results of this calculation demonstrate the light trespass impacts resulting from the proposed Project illuminated signs at the position where light is under review are below the significance threshold of 3.0 foot-candles.

Incident light (fc) from a source degrades in proportion to the inverse square of the distance from the source to the location where lighting is under review. The illuminance E_v (fc) incident at any given distance D (ft) from an illuminated surface S (ft^2) with uniform surface luminance of L (cd/m^2) is calculated by the following formula:

$$E_v = \frac{L \times S}{10.76 \times D^2}$$

This formula illustrates the reduction in illuminance at any location as the distance increases from a sign surface. The calculated illuminance at the adjacent property lines are below the maximum threshold value of 3.0 fc as summarized above in Table 6. More distant residential properties will receive less light from the Project due to the increased distance. Therefore, the Project will not produce a significant light trespass impact to any residential properties.

[14] *The drivers field of view from the center of the roadway plus 10 degrees."*

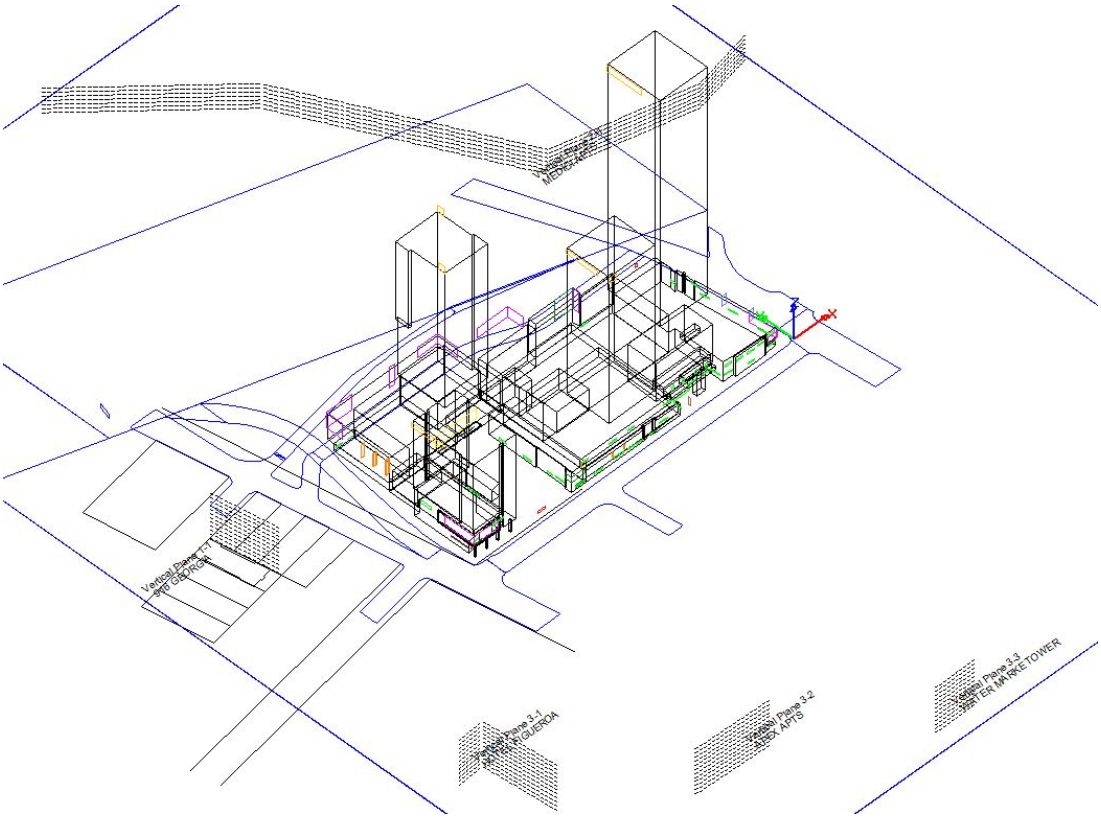


Figure 33: Model view of Project Site & vertical planes where lighting is under review

Table 6: Illuminance (fc) – Calculated at vertical planes where lighting is under review

Vertical Plane	Description	Illuminance (fc)			Analysis
		Average	Maximum	Minimum	
1-1	Vertical plane 116 feet high at 916 Georgia St	1.96	2.30	1.50	Below threshold
2-1	Vertical plane 66 feet high at the southeast edge of the Medici Apartments closest to the Site	0.86	2.10	0.10	Below threshold
3-1	Vertical plane 116 feet high at Hotel Figueroa	0.30	0.50	0.20	Below threshold
3-2	Vertical plane 116 feet high at Apex Apartments	0.30	0.30	0.30	Below threshold
3-3	Vertical plane 116 feet high at Water Marke Tower	0.20	0.20	0.20	Below threshold

The comparison of the measured existing illuminance at the Receptor Site locations and the corresponding calculated Project illuminance at each individual Receptor Site location is presented below in Table 7. The Project Illuminance identified in Table 7 is the calculated illuminance from Appendix E at each Receptor Site. Consistent with Table 6, all residential Receptor Sites (R1-a, R2-a, R2-b, R2-c, and R4-b) are below the threshold value of 3.0 fc and therefore the illuminance from the Project illuminated signs will be less than significant. In addition to compliance with the standard of a maximum of 3.0 fc, there will be no significant increase in illuminance at any of the residential Receptor Sites as compared to existing. The

illuminance from the Project at each of the residential Receptor Sites (R1-a, R2-a, R2-b, R2-c, and R4-b) varies from 0.0 fc to a maximum of 1.6 fc.

At the non-residential Receptor Sites (R3-a, R3-b and R4-a) the Project vertical illuminance ranges from 1.4 fc to 10.10 fc, and the horizontal illuminance ranges from 0 fc to 3.10 fc. These three Receptor Site are closest to the Project, and have the greatest extent of context within the view of the illuminated signs towards the Project. Receptor R3-a is adjacent to a parking lot that is well illuminated with high intensity parking lot light poles with an existing vertical illuminance at 1.08 footcandles. Both R3-b and R4-a are located adjacent to a commercial structure and busy streets with horizontal light levels of 1.44 and 1.73 footcandles respectively. Given the existing urban conditions and high illuminance from the existing City street lights, and the fact that these are not residentially zoned properties, the illuminance from the Project illuminated signs at these three Receptor Site locations will be less than significant.

Table 7. Illuminance (fc) - Comparison of Measured Existing vs Calculated Project

Receptor Site	Measurement	Existing Illuminance (fc)	Project Illuminance (fc)	Analysis
R1-a	Horizontal	0.38	0.30	Existing is measured at northwest corner at 916 Georgia. Moderate increase to the vertical plane from Project lighting. Below threshold.
	Vertical	1.08	1.60	
R2-a	Horizontal	0.62	0	Existing is measured at (9th) floor of parking structure. Very low increase from Project Lighting. Below threshold.
	Vertical	0.30	0.40	
R2-b	Horizontal	7.63	0	Existing is estimated from measured values at R2-a. Moderate increase to the vertical plane from Project Lighting. Below threshold.
	Vertical	3.69	1.30	
R2-c	Horizontal	0.51	0	Existing is measured adjacent to roadway light pole. Very low increase from Project Lighting. Below threshold.
	Vertical	0.31	0.10	
R3-a	Horizontal	0.24	0.10	Existing is measured adjacent to roadway light pole. Moderate increase from Project Lighting. Not a residential property. Below threshold.
	Vertical	0.23	1.40	
R3-b	Horizontal	1.44	0	Existing measurement near freeway bridge. High increase from Project lighting, appropriate for urban commercial sidewalk. Not a residential property, no impact.
	Vertical	0.99	3.60	
R4-a	Horizontal	1.73	3.10	Existing Measured adjacent to roadway lighting pole.

	Vertical	0.36	10.10	High increase from Project lighting, appropriate for urban commercial sidewalk. Not a residential property, no impact.
R4-b	Horizontal	2.80	0	Existing measured adjacent to building mounted wall pack. Very low increase from Project Lighting. Below threshold.
	Vertical	2.96	0.10	

7.2-2 Glare Analysis at Receptor Site

The Project illuminated signs are visible from the Receptor Sites to the west, north west, and southeast of the Project Site. As proposed by the Applicant, the requested Sign District (Described in Appendix A) would require that the Project illuminated signs be dimmed at night to reduce the brightness to not exceed 600 cd/m^2 at night. The Project illuminated signs visible from the Receptor Sites are evaluated in comparison to the existing average measured luminance observed during the field surveys as noted in Section 6 above and as summarized in Table 8 below. The Project illuminated signs will be partially or fully visible from all Receptor Sites except site R4-b. The Contrast Ratio is calculated by the Project Sign Maximum Luminance divided by the Average Measured Luminance. Contrast Ratios less than 30:1 are considered medium contrast, and will not introduce a new source of glare. None of the Receptor site locations have a Contrast Ratio higher than Medium. In fact, the Contrast Ratio is low, less than 10:1 at the majority of the Receptor site locations (7 of 8). The low Contrast Ratio indicates the Project Sign luminance is slightly greater than or equal to the average luminance, and therefore the Project Signs will not be bright relative to the surrounding luminance. The proposed maximum permitted night time sign luminance of 600 cd/m^2 limits the sign brightness to an acceptable contrast range relative to the existing brightness visible from the Receptor Sites.

Table 8: Luminance (cd/m^2) – comparison of existing measured to Project Signs

Receptor Site	Existing Measured Luminance (cd/m^2)		Project Sign Luminance		Contrast Ratio Analysis
	Max	Average	Max (cd/m^2)	Contrast Ratio	
R1-a	25,770	5,149	600	0.1 : 1	Low
R2-a	224	28	600	21 : 1	Medium
R2-b	305	80	600	7.5 : 1	Low
R2-c	305	79	600	7.6 : 1	Low
R3-a	3,648	666	600	0.9 : 1	Low
R3-b	5,879	1,417	600	0.4 : 1	Low
R4-a	3,480	450	600	1.3 : 1	Low
R4-b	24,490	2,473	600	0.2 : 1	Low

7.2-3 Glare Analysis for Roadways

The lighting impact to driver's visibility from the Project illuminated signs is evaluated by way of the methodology defined above at the locations where lighting is under review. As summarized below, the results of this evaluation demonstrate the light impacts resulting from the Project illuminated signs at the locations where light is under review are below the significance threshold for excessive luminance, or glare, during night, during the period after sunrise, and before sunset when sunlight illuminance is low, and during the day. The Projects meet the California Vehicle Code standard for roadways approaching the Project from all directions.

The glare analysis of the proposed Project illuminated signs during night assumes the simultaneous use of all Project illuminated signs on full white at the maximum luminance provided in the Applicant's proposed Sign District, and compares the resulting luminance to the most stringent requirements of the California Vehicle Code to determine if the Project illuminated signs introduce a source of distracting glare to drivers. The most stringent condition identified within the California Vehicle Code Section 21466.5, states: "except that when the minimum measured brightness in the field of view is 10 footlamberts or less, the measured brightness of the light source in footlamberts (fL) shall not exceed 500 plus 100 times the angle, in roadway degrees, between the driver's field of view and the light source." Thus, the worst case, most conservative evaluation, occurs where the Project illuminated signs are visible within the centerline of the drivers field of view, the angle noted above within the field of view is 0, the surrounding surface luminance is less than 10 fL, and therefore the maximum allowable luminance is 500 fL. Therefore, the most conservative, worst case condition at night evaluates Project illuminated signs against a threshold for luminance of a maximum 500 fL.

A measured brightness within the driver's field of view of less than 10 fL may occur at night. As proposed by the Applicant, the requested Sign District, would establish the maximum nighttime luminance of Project illuminated signs at 600 cd/m^2. Calculating the equivalent Project sign luminance by converting to english units from metric units: 600 cd/m^2 equals 191 fL. The Project signs would not exceed 191 fL, which is less than the 500 fL maximum, the most conservative limit stipulated by the California Vehicle Code for conditions where the minimum brightness in the driver's field of view is less than 10 fL.

For signs located beyond the driver's 10 degree field of view the maximum luminance is permitted to increase under the California Vehicle Code. For example, signs located 15 degrees from the centerline of the driver's field of view would be limited to a maximum of 1000 fL (500 fL plus 100 times the angle (5 degrees) = 1000 fL). All Project illuminated signs will operate at maximum of 191 fL at night, or less than 20% of the maximum allowed by the California Vehicle code for those locations at 15 degrees from the center of the driver's field of view. Therefore, at night the Project illuminated signs would not exceed the 500 fL threshold and would not introduce a new source of glare as defined by the California Vehicle Code Section 21466.5.

The Project illuminated signs are also evaluated during the transition period from day to night, from 45 minutes before sunset to 20 minutes before sunset, and the transition from night to day from 20 minutes after sunrise to 45 minutes thereafter. Sunlight increases gradually from the minimum brightness at sunrise to maximum brightness at midday, and then decreases gradually to the minimum brightness at sunset. Therefore, the minimum ambient luminance occurs at sunset or sunrise. However, in order to analyze the worst case, most conservative, low level sunlight conditions, this analysis adjusts the time frame for the minimum ambient luminance condition of 10 fL to 20 minutes prior to sunset and 20 minutes after sunrise, extending the duration of night. At 20 minutes prior to sunset the ambient sunlight will be greater than the minimum values at sunset, and at 20 minutes after sunrise the luminance will be greater than the

minimum at sunrise. At 20 minutes prior to sunset, the minimum luminance values within the driver's field of view will be above the minimum night time values (10fL) due to the light from the setting or rising sun. However, to maintain a worst case, conservative analysis, this evaluation assumes the minimum luminance within the driver's field of view will be less than 10 fL from 20 minutes prior to sunset until 20 minutes after sunrise. Therefore, the maximum luminance threshold during this time will remain at 500 fL as noted above in the evaluation of the night threshold. As proposed by the Applicant, at 45 minutes prior to sunset the Project Signs are specified to begin transition from the maximum daytime luminance of 6000 cd/m^2 to the maximum nighttime luminance of 600 cd/m^2. This transition must be completed no later than 20 minutes prior to sunset as per the regulations proposed by the Applicant for the requested Sign District. Similarly, the Applicant proposes that the Project illuminated signs be required to transition from the night maximum luminance of 600 cd/m^2 to the day maximum luminance of 6000 cd/m^2, beginning no earlier than 20 minutes after sunrise. Therefore, the Project signs would not exceed 600 cd/m^2 for the period beginning 20 minutes prior to sunset until 20 minutes after sunrise. As proposed by the Applicant, the requested Sign District would require that the Project illuminated signs remain limited to the 600 cd/m^2 (191 fL) maximum luminance value, from 20 minutes before sunset to 20 minutes after sunrise. Therefore, at 20 minutes before and including sunset and at sunrise and 20 minutes after, the Project illuminated signs would not exceed the threshold of 500 fL, and would therefore not introduce a new source of glare.

The evaluation of the Project illuminated signs during the day (20 minutes after sunrise until 20 minutes before sunset) compares the daytime, ambient brightness to the maximum sign brightness stipulated by the California Vehicle Code during full sun conditions and overcast sky conditions. The California Vehicle Code, Section 21466.5 above permits the Project signs to "generate light intensity levels greater than 1,000 times the minimum measured brightness in the driver's field of view, except when the minimum values are less than 10 (fL)."

During the day (20 minutes after sunrise until 20 minutes before sunset) sunlight with clear sky conditions or light overcast conditions provides sufficient illuminance to generate surface brightness greater than 10 fL and up to 1200 fL on the least reflective surfaces, such as roadway pavement. Utilizing the value of 10fL as the minimum within the driver's field of view, the maximum allowable brightness would be 1,000 times 10 fL, or 10,000 fL. The Applicant proposes that the requestedSign District require that the Project illuminated signs not exceed 6,000 cd/m^2 (1,910 fL) during the daytime hours of operation, and Project signs would therefore operate at less than 20% of the maximum luminance stipulated by the California Vehicle Code. Therefore, the Project illuminated signs would not create a new source of glare during day time hours of operation with clear sky or light overcast conditions.

Severe storms, heavy cloud cover, or other atmospheric conditions may occur during the day, which may cause the minimum brightness within the driver's field of view to be less than 10 fL. The Applicant proposes that the requested Sign District require that the Project illuminated signs include an electronic control system to reduce the sign luminance from 6,000 cd/m^2 (1910 fL) to 600 cd/m^2 (191 fL) maximum when the ambient sun light falls to illuminance values similar to night, less than 100 fc. During the day, when storms, cloud cover, or other low ambient sunlight conditions occur and when the ambient sunlight is less than 100 fc, the Project illuminated signs would transition from the daytime 6,000 cd/m^2 (1910 fL) to 600 cd/m^2 (191 fL) maximum, and thereby ensure that the sign brightness remains less than 20% of the maximum brightness stipulated by the California Vehicle Code. Therefore, the Project illuminated signs would not create a new source of glare during day time periods with storm or severe overcast weather conditions.

As proposed by the Applicant, the Project illuminated signs would be designed to not exceed 600 cd/m^2 (191 fL) luminance at night or during overcast sky conditions, and to not exceed 6,000 cd/m^2 (1910 fL) during the day. These values are less than the California Vehicle Code standard, including 20% of the maximum allowable luminance identified as the threshold for glare during the day, therefore the Project illuminated signs would not create a new source of glare.

7.2-4 Freeway Receptor Site Analysis Methodology

The proposed Project illuminated signs are further evaluated at the Receptor Sites identified in Figure 34 to identify the signs within the driver's field of view, and to evaluate the Project sign luminance relative to the California Vehicle Code standards defined in Section 3.3 above. The analysis is presented below for drivers traveling on the southbound and northbound lanes of the State Route-110 (Harbor Freeway). The analysis of the freeway demonstrates that the Project illuminated signs would not create a new source of glare for drivers on the State Route-110 (Harbor Freeway) and other adjacent roadways.

The Project illuminated signs are analyzed for drivers within the southbound and northbound lanes with respect to the visibility of the Project within the driver's field of view and the extent any signs are within the drivers 10 degree cone of vision. Figure 34 indicates the locations within the State Route-110 (Harbor Freeway) right of way where lighting is under review, and are listed with an F prefix. Freeway directional signs and caution signs are identified in Figure 34 with numbers. The California Vehicle Code defines the driver's field of view from the center of the roadway plus 10 degrees. Each Receptor Site is evaluated to determine whether the Project signs are within the driver's field of view (the 10 degree cone of vision) and the luminance of the Project sign is

evaluated against the standards identified in the California Vehicle Code as described in Section 7.2-3 above.

7.2-5 Southbound Freeway Receptor Sites Results

Receptor site locations F2-a, F2-b, F2-c, and F2-d within the southbound lanes of the State Route 110 (Harbor Freeway) are illustrated in Figure 34 in relation to the Project site and adjacent City streets. Figure 35 illustrates the southbound driver's field of view within a 10 degree cone of vision from the centerline of the far left lane at each Receptor site.

Caltrans freeway signs within the southbound lanes, also depicted in Figure 35, include an overhead directional sign located south of the West 7th Street overpass (Sign #13). This directional freeway sign is illuminated at night with two metal halide flood lamps.

Southbound drivers north of point F2-a have no visibility of the Project illuminated signs due to the topography of the freeway right-of-way and the West 6th Street and Wilshire Boulevard overpass structures. Therefore, there is no glare from Project illuminated signs at all locations north of F2-a either during the day or at night.

At Receptor site F2-a and all points south to Receptor site F2-d one or more of the Project illuminated signs may be within the driver's 10 degree field of view (see Figure 35. Within the freeway segment from Receptor site F2-a to F2-b, the view of the Project Site is obstructed by the adjacent structures and landscape as shown in Figure 25 and Figure 26 above. Therefore, there is no glare from the Project illuminated signs from F2-a to F2-b either during the day or at night.

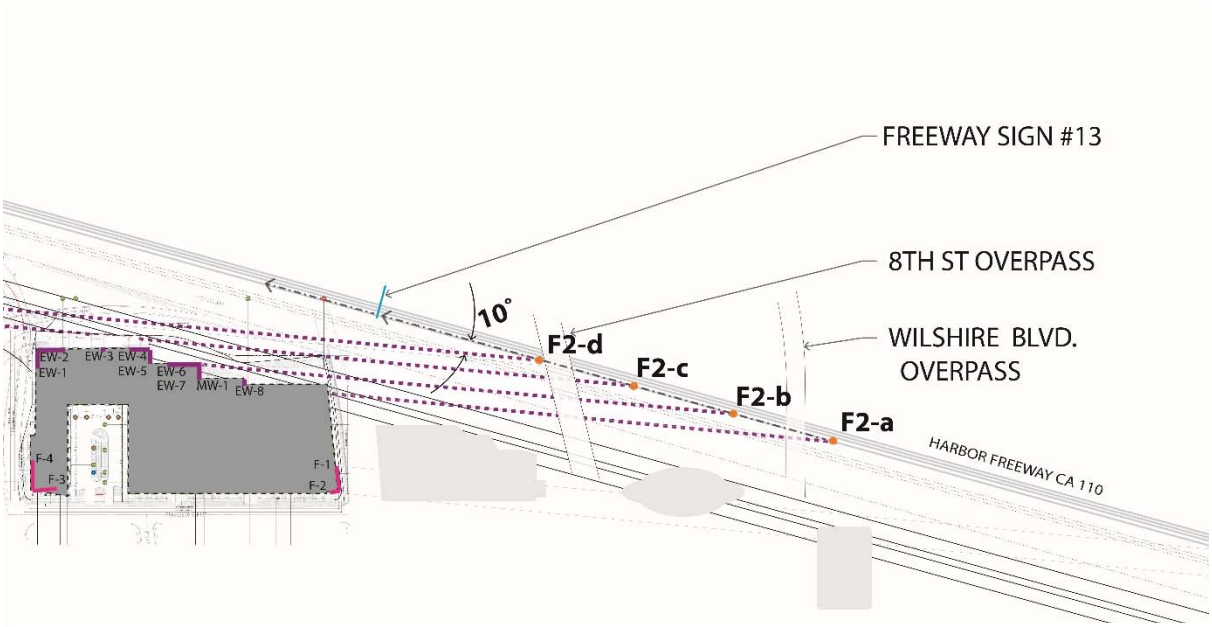


Figure 35: Southbound State Route-110 (Harbor Freeway) Receptor Site locations

From Receptor site F2-b to Receptor site F2-c the center bridge support of the West 7th Street overcrossing blocks the view of the podium level Project signs (see Figure 35 above). Therefore, there is no glare from the Project illuminated signs from Receptor site F2-b to F2-c either during the day or at night.

At Receptor site F2-c and all points south of F2-c, the drivers 10 degree field of view does not include the Project Illuminated signs (see Figure 35 above). At Receptor site F2-c one or more of the Project illuminated signs may be visible to the left of the driver's field of view, while the overhead Freeway Sign #13 is visible within the driver's field of view. Project sign EW-5 may be visible at approximately 12 degrees from the drivers' field of view, and Project sign EW-8 may be visible at approximately 20 degrees from the drivers field of view. As proposed by the Applicant, all Project signs would be limited to 600 cd/m^2 (191 fL) which is well below the maximum luminance defined by the California Vehicle Code. For Project sign EW-5 the maximum allowed luminance value at 12 degrees would be 700 fL ("the measured brightness of the light source in footlambert shall not exceed 500 plus 100 times the angle, in degrees, between the driver's field of view and the light source"), and for Project sign EW-8 the maximum luminance would be 1500 fL. The proposed Project illuminated signs would be well below the maximum permitted luminance and would therefore not introduce a new source of glare.

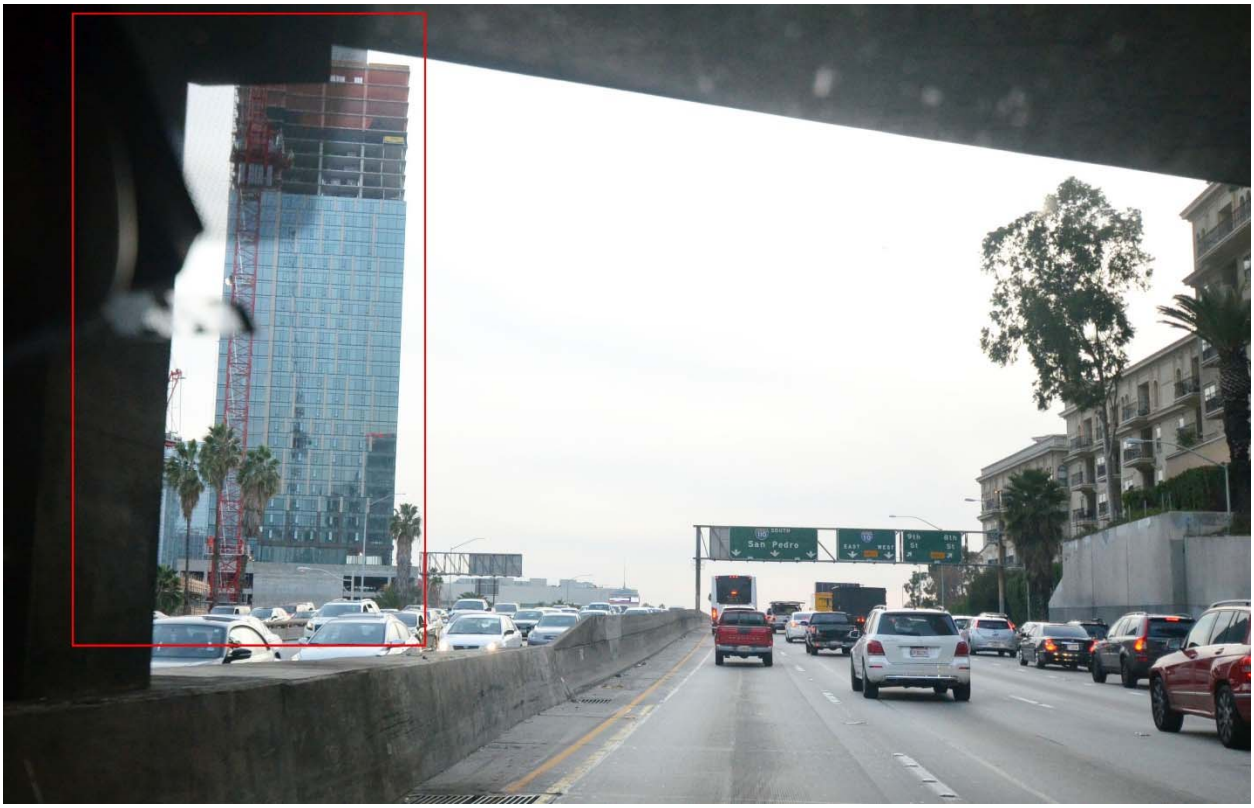


Figure 36: Southbound State Route-110 (Harbor Freeway) at location F-2d (Project red outline).

At Receptor site F2-d one or more of the Project illuminated signs are visible to the left of the driver's 10 degree field of view. The distance to the nearest Project sign is approximately 640 feet from Receptor site F2-d. During this southbound driving sequence, one or more of the Project illuminated signs may be visible beyond the drivers 10 degree field of view, and do not exceed the maximum brightness set by the California Vehicle Code: 10,000 fL during daytime and 500 fL at night. Therefore, the Project illuminated signs would not introduce a new source of glare at Receptor site F2-d.

7.2-6 Northbound Freeway Receptor Sites

The Freeway Receptor site locations F1-a, F1-b, F1-c, F1-d +176', F1-d, and F1-e within the northbound lanes of the State Route-110 (Harbor Freeway) are illustrated in Figure 37 below in relation to the Project site and adjacent City streets. Figure 35 also illustrates the drivers field of view with a 10 degree cone of vision from the centerline of the far right, northbound lane at each Freeway Receptor site. The freeway signs within the northbound lanes in the vicinity of the Project are depicted in Figure 37, and include two overhead directional signs (James M. Wood Blvd. & 9th Street Off Ramp sign #3 and #7), which are illuminated at night with flood lamps, and two non-illuminated direction signs (Sign #4, #5), and non-illuminated caution signs (Sign #8, #9, #10) along the James M. Wood Blvd. & 9th Street Off Ramp.

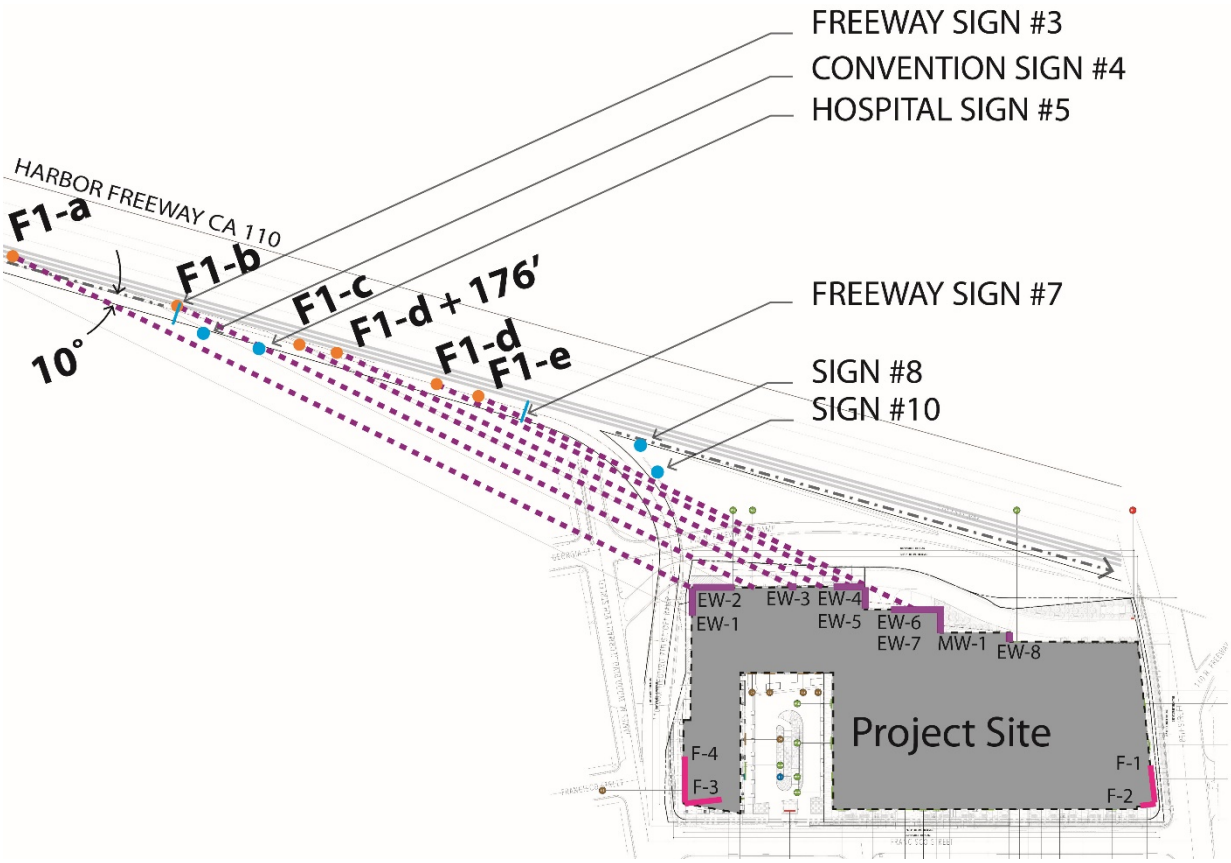


Figure 37. Northbound State Route-110 (Harbor Freeway) Receptor site locations

The Project illuminated signs are not visible at any locations south of Receptor site F1-a, and including point F1-a, due to obstructions along the eastern boundary of the freeway. Therefore, since the signs are not visible there is no glare from Project illuminated signs south of Receptor site F1-a either during the day or at night.

North of Freeway Receptor site F1-b, up to and including Receptor site F1-e and the sequence of the driver exiting the freeway at the James M. Wood Boulevard & 9th Street Off Ramp, several Project illuminated signs are visible and within the drivers field of view within the right hand northbound lane. Project illuminated signs are evaluated during this driving sequence at Receptor sites F1-b, F1-c, F1-d+176 ft, F1-d and F1-e.

Receptor site F1-b is located immediately below Freeway Sign #3, and from this location one or more of the Project illuminated signs may be visible in the distance within the drivers' field of view. This view also includes freeway sign #7. Freeway Sign #3 is directly overhead, and is therefore not visible from this location. At night the Project illuminated signs would be adjusted to a maximum of 600 cd/m^2 (191 fL) as per the Applicant's proposed requirements of the requested Sign District. The maximum illuminance of 600 cd/m^2 (191 fL) is well below the threshold of 500 fL for signs within the drivers 10 degree field of view, therefore the Project would not produce glare at F1-b.

Receptor Site F1-c is located between Freeway signs, #3 and #7, to evaluate the Project illuminated signs visible within the driver's field of view. The distance from F1-c to the Project sign EW-4 is approximately 904 feet (278m). As noted above the Applicant's proposed maximum Project sign luminance of 600 cd/m^2 (191 fL) is well below the threshold of 500 fL for signs within the drivers 10 degree field of view, therefore, the Project would not introduce a new source of glare at Receptor site F1-c.

Receptor Site F1-d+176ft is located to analyze the Project signs at a distance from Sign #3 which allows the driver two seconds to make any lane changes upon recognizing the freeway sign to exit, at the maximum travel speed of 60 mph. The distance from Receptor site F1-d+176ft to the Project sign is 885 ft. As noted above the Applicant's proposed maximum Project sign luminance of 600 cd/m^2 (191 fL) is well below the threshold of 500 fL for signs within the drivers 10 degree field of view, therefore the Project would not create a new source of glare at Receptor site F1-d+176ft.

Receptor Site F1-d is 127 feet from the freeway sign #7 and has a direct view of the Project Illuminated signs, which are located approximately 796 feet from Receptor Site F1-d. As noted

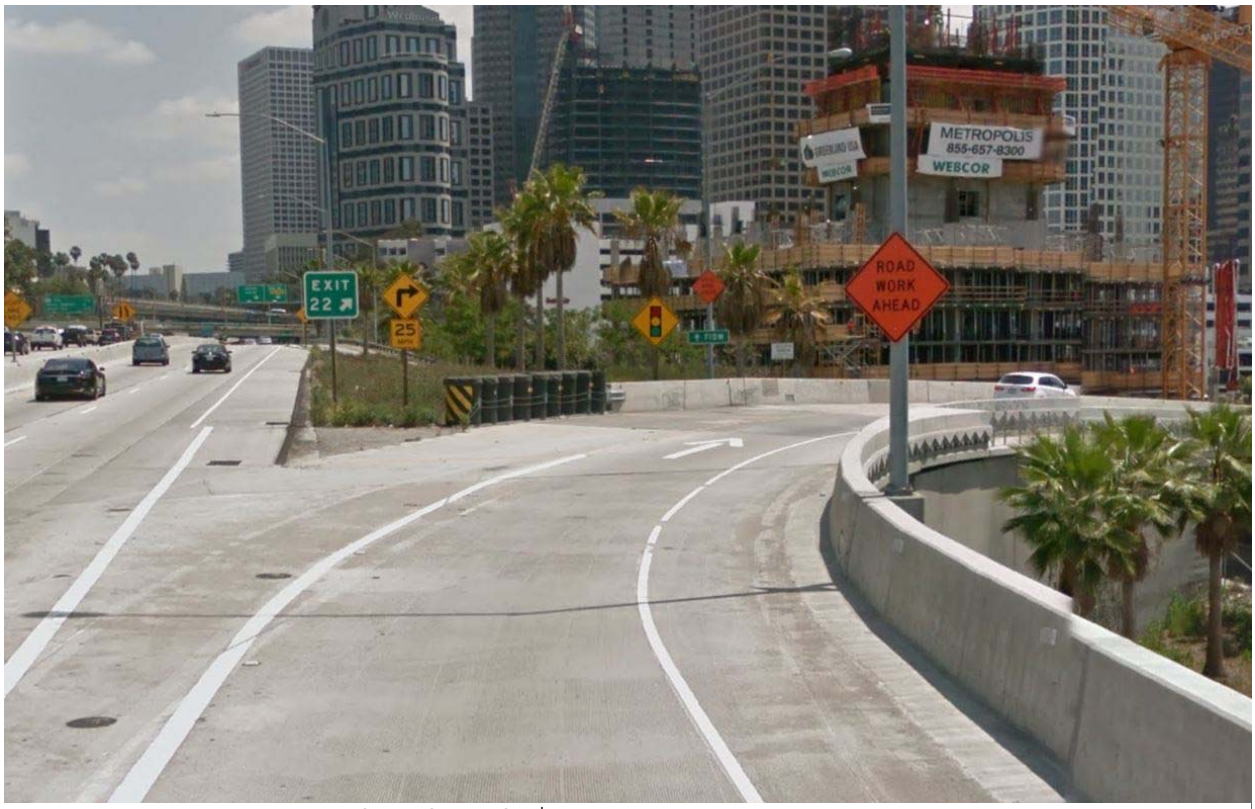


Figure 38: James M. Wood Boulevard 9th Street exit ramp

above the Applicant's proposed maximum Project sign luminance of 600 cd/m^2 (191 fL) is well below the threshold of 500 fL for signs within the drivers 10 degree field of view, therefore, the Project would not introduce a new source of glare at Receptor site F1-d.

Receptor Site F1-e is located within the exit lane below the James M. Wood Blvd freeway sign #7. Three non-illuminated freeway signs are visible (see Figure 38) within the exit ramp including Caution Ahead (Sign #8) and Signal Ahead (Sign #10). As noted above the Applicant's proposed maximum Project sign luminance of 600 cd/m^2 (191 fL) is well below the threshold of 500 fL for signs within the center of the drivers 10 degree field of view. Therefore, the Project would not introduce a new source of glare at Receptor site F1-e.

One or more Project illuminated signs may be within the drivers 10 degree field of view along portions of the southbound and northbound lanes of the State Route 110 (Harbor Freeway) adjacent to the Project site.

The evaluation of the Project sign brightness presented above demonstrates that the Project sign impacts resulting from the proposed Project signs at the position where light is under review are less than significant. The Project illuminated signs conform to the stipulations of the California Vehicle Code and would not introduce a new source of glare.

8. Conclusion

Light Trespass

This Report analyzed the proposed illuminated signs with respect to the potential impact to the adjacent surrounding properties and roadways. Conservatively, the analysis assumed the simultaneous use of all illuminated signs at the maximum luminance of 600 cd/m^2, regardless of sign type, at night.

As summarized in Table 6 above, the illuminance calculations demonstrate the light trespass impacts resulting from the proposed Project illuminated signs at the locations where light is under review at residential properties are below the significance threshold of 3.0 foot-candles.

The comparison of the measured existing illuminance and calculated Project illuminance is presented in Table 7 on page 50. The Project illuminated signs will increase the vertical illuminance at Receptor Sites R1-a, R3-b and R4-a. These three locations are closest to the Project and have the greatest extent of context within the view of the illuminated signs towards the Project. Receptor R1-a is adjacent to a parking lot that is well illuminated with high intensity parking lot light poles with an existing vertical illuminance at 1.08 footcandles. Both R3-b and R4-a are located adjacent to a commercial structure and busy streets with horizontal light levels of 1.44 and 1.73 footcandles respectively. The illuminance from the Project illuminated signs does not exceed the threshold value of 3.0 footcandles. Given the existing urban conditions and high illuminance from the existing City street lights, the illuminance from the Project illuminated signs will be less than significant.

Glare

The Project illuminated signs are visible from the residential sites to the south and west of the Project site and from surrounding adjacent streets and freeways. The Applicant has proposed that the requested Sign District would require that maximum sign luminance not exceed 600 cd/m^2 at night, including 20 minutes before sunset until 20 minutes after sunrise, and 6000 cd/m^2 during the day. Furthermore, the Applicant has proposed that the requested Sign District would

require an electronic control mechanism to reduce sign luminance to 600 cd/m^2 at any time when ambient sunlight is less than 100 footcandles. Because the Applicant has proposed that the requested Sign District include these regulations, the Project illuminated signs would not be a source of glare for potentially affected receptor sites.

Driver visibility would not be adversely affected by the Project illuminated signs. At many of the locations analyzed proposed signs that may be within the driver's primary field of view are obstructed by landscape and structures. Furthermore, as proposed by the Applicant, the requested Sign District would require that all signs comply with the specified maximum luminance for both day and night to and would comply with the California Vehicle Code. Indeed, the maximum daytime luminance for all proposed signs would be 80% below the maximum identified by the California Vehicle Code.

Lighting impacts resulting from the proposed Project illuminated signs evaluated in this Report would be less than significant.

APPENDIX A: Proposed Metropolis Sign District Project Description

Proposed Metropolis Sign District
Project Description

The Applicant, Greenland LA Metropolis Development II LLC ("Applicant"), is requesting the establishment of a new Sign District (the "Sign District"), pursuant to Los Angeles Municipal Code Section 13.11, for the Metropolis Development, a residential, hotel, and retail project on a 6.3-acre site in Downtown Los Angeles. The site, and the proposed Sign District, are bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north. The establishment of the Sign District, adopted by ordinance, would result in sign regulations which would be applicable to the Metropolis Development.

The Metropolis Development

The Metropolis Development, which was previously approved and is currently under construction, consists of four towers atop podiums. The southern portion of the site contains an 18-story hotel tower and a 38-story residential tower. The northern portion of the site contains two residential towers, 40-stories and 56-stories, respectively. The tower heights range from 260 feet to approximately 627 feet. Commercial uses will be located on the ground floor of the hotel tower, and on the ground floor and/or third floor of the residential towers. The primary vehicular access to the site will be provided from Francisco Street, 8th Street, and James M. Wood Boulevard.

Digital public art has been installed on the eastern façade of the southern residential tower within the courtyard facing Francisco Street. The rectangular public art is a digital installation on an LED screen that is approximately 14.75 feet by 97 feet for a total of approximately 1,430.75 square feet mounted in a frame on the eastern façade of the southern residential tower. The public art has been deemed to be a Public Art Installation by the Department of Cultural Affairs, and is therefore not part of the Sign District and is not considered a sign. All the necessary approvals and permits were obtained for the installation of the public art.

The Proposed Sign District

The proposed Sign District would provide sign regulations intended to allow signage that is generally consistent with unique characteristics of the Metropolis Development. The objectives of the proposed Sign District would be to:

- Provide unique and vibrant signage that will inform and attract visitors regarding the Metropolis Development's businesses and offerings.
- Provide regulations of signage to:

- Ensure the quality of the Metropolis Development's appearance and further a vibrant environment;
- Ensure that signs accentuate the architectural characteristics of the Metropolis Development by being responsive to and integrated with the aesthetic character of the structures on which they are located;
- Ensure that signs are positioned in a manner that is compatible both architecturally and relative to the other signs on-site and surrounding uses;
- Encourage creative, well-designed signs that contribute in a positive way to the visual environment of the automobile gateway to Downtown Los Angeles, the Avenue of Angels, the Design Project Area and the Community Plan area;
- Ensure that signs visible from State Route-110 (Harbor Freeway) are aesthetically compatible with such highway, promote public safety and comply with State and Federal laws, regulations and agreements that apply to signs visible from such highway; and
- Coordinate the location and display of signs so as to enhance the pedestrian realm, minimize potential traffic hazards, and protect public safety.

The Metropolis Development is located within the Central City Community Plan (Community Plan) area within the Convention Center Sphere of Influence. The Metropolis Development is consistent with the Community Plan objectives to encourage a mix of uses to create an active, 24-hour downtown environment to, among other things, foster increased tourism though the mix of commercial and residential uses. Given the mix of uses that will occur on the site, the proposed signs would provide the necessary information regarding the services and commercial uses that include but are not limited to hotel, retail and restaurant uses that would be located in the development so as to attract visitors and customers to ensure the overall economic viability of the development. The design of the proposed signs has been undertaken in a manner that integrates the signage with the architecture of the buildings.

The proposed system of signs and identity elements for the Metropolis Development is intended to contribute to a lively and colorful pedestrian atmosphere along the street frontages within the Convention Center Sphere of Influence, by having, in part, animated and illuminated signs and graphics that are compatible with the commercial, entertainment, and retail uses in the downtown area.

The Sign District would set forth requirements governing the allowable sign types, locations, maximum square footage, hours of operation, and type of animation or controlled refresh for the proposed signage.

Proposed Signage and Sign Types

The Proposed Sign District would govern all signage with sign faces visible from any public right-of-way and would establish a unified identity for signs within the Metropolis

Development. The Applicant proposes a total of 31,018 square feet of signage within the Sign District, excluding wayfinding and temporary signs. The Applicant proposes that the signage be distributed among the four street frontages and identifies a proposed sign area square footage for each of the four streets on which the Metropolis Development fronts. 8th Street is proposed to have a maximum of 4,031 s.f.; Francisco Street is proposed to have a maximum of 7,889 s.f.; James M. Wood/9th Street Off-Ramp is proposed to have a maximum of 7,351 s.f.; and State Route-110 (Harbor Freeway) is proposed to have a maximum of 11,747 s.f.[1]

The Sign District would include a variety of sign types such as:

- Canopy Sign
- Wall Sign
- Hanging Sign
- Window Sign
- Tall Building Sign
- Multi-Tenant Wall Sign
- Multi-Tenant Window Sign
- Special Event Signs
- Multi-Tenant Projecting Sign
- Multi-Tenant Pillar Sign
- Monument Sign
- Electronic Message Display Sign
- Full Motion Electronic Message Display Sign
- Full Motion Electronic Message Display Projecting Sign
- Temporary Signs

The Applicant proposes to include within the Sign District definitions for certain sign types. Multi-Tenant signs are signs that contain logos, names or other identifying information for multiple individual tenants. Tall Building signs are identification signs located on the upper portion of a building. Electronic Message Display signs are signs that display still images through the use of electronic media or technology (such as light emitting diode displays) and that may change remotely through electronic means. Full Motion Electronic Message Display signs are Electronic Message Display Signs that include scrolling, moving or flashing images.

The Sign District would permit both On-Site and Off-Site signs and messages. Signs with copy that is visible from State Route-110 (Harbor Freeway) or any portion thereof, and that do not advertise the business conducted, services rendered, or goods produced or sold on the project site, would be required to maintain a minimum distance of 500 feet from one another, unless they are separated by buildings or other obstructions so that only one such sign is visible from the freeway at any one time.

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[1] The Applicant proposes that the Sign District allow the Director of Planning to make minor adjustments relative to the total amount of signage permitted and the distribution of signage by street frontage.

The Sign District would prohibit the following sign types: internally illuminated awnings, conventional plastic faced box or cabinet signs, formed plastic faced box or injection molded plastic signs, luminous vacuum formed letters and wall murals covering operable windows.

The Sign District would establish the maximum square footage permitted for each sign type. Table 1, Maximum Area by Sign Type Within the Sign District, summarizes the amount of square-footage that would be permitted by sign type.[2]

TABLE 1
MAXIMUM AREA BY SIGN TYPE WITHIN THE SIGN DISTRICT

Sign Type	Maximum Square Footage
Electronic Message Display Sign	10,516 sf
Full Motion Electronic Message Display Sign	3,935 sf
Full Motion Electronic Message Display Projecting Sign	404 sf
Monument Sign	94 sf
Canopy Sign	339 sf
Wall Sign	2,859 sf
Hanging Sign	325 sf
Window Sign	225 sf
Multi-Tenant Wall Sign	3,212 sf
Multi-Tenant Projecting Sign	1,728 sf
Multi-Tenant Pillar Sign	190 sf
Multi-Tenant Window Sign	1,927 sf
Tall Building Sign	5,264 sf
Total Square Footage	**31,018 sf**

Sign Locations

The Sign District would regulate the locations of signs relative to both horizontal and vertical planes. The Applicant has identified locations of the proposed signs by reference to Individual Sign Areas and Vertical Sign Zones, as shown below (*Individual Sign Areas and Vertical Sign Zones Diagram*). Individual Sign Areas define horizontal planes and generally coincide with the four street frontages. Vertical Sign Zones define vertical planes. The purpose of the Individual Sign Areas and Vertical Sign Zones is to address the relationship between sign intensity with each street frontage and the vertical heights and to ensure that signs are compatible with and promote the Metropolis Development.

[2] The Applicant proposes that the Sign District allow the Director of Planning to make minor adjustments to the distribution of signage by sign type.

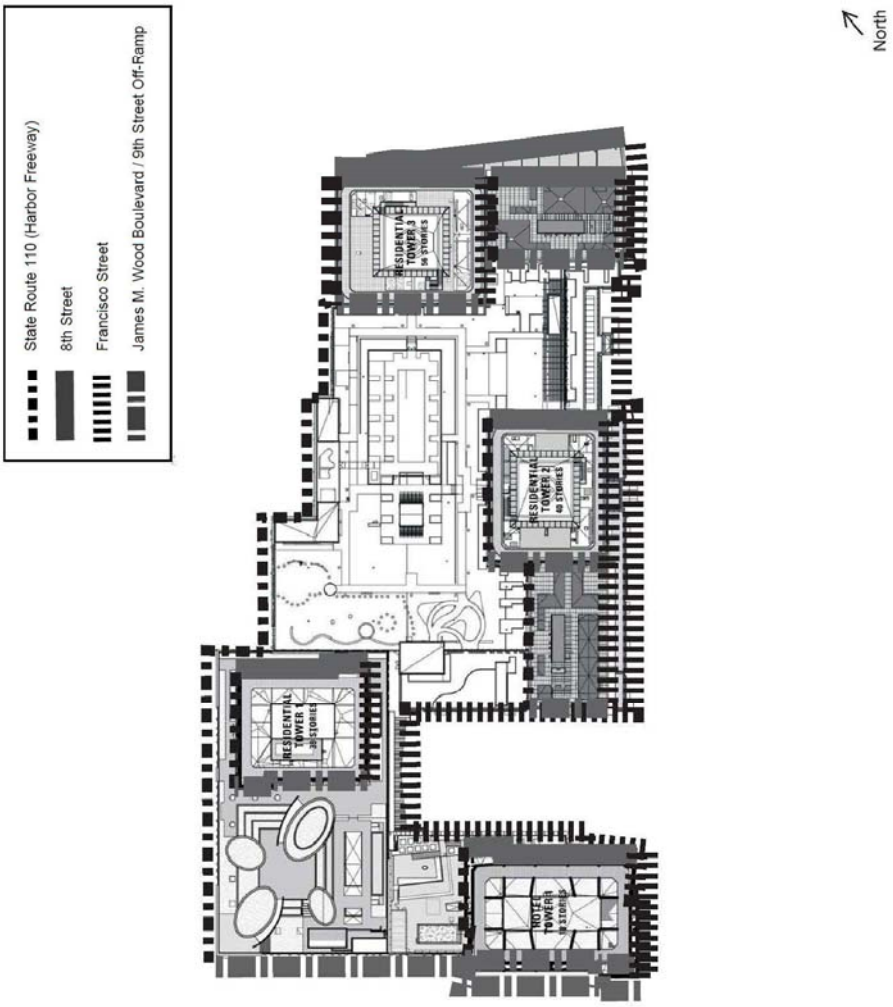
More specifically, the Individual Sign Areas are: Francisco Street, 8th Street, State Route-110 (Harbor Freeway) and James M. Wood Boulevard/9th Street Off-Ramp from the State Route-110 (Harbor Freeway).

In terms of the vertical locations, the three Vertical Sign Zones, measured from the adjacent grade at the base of the building, at the nearest point below the sign along the building baseline:

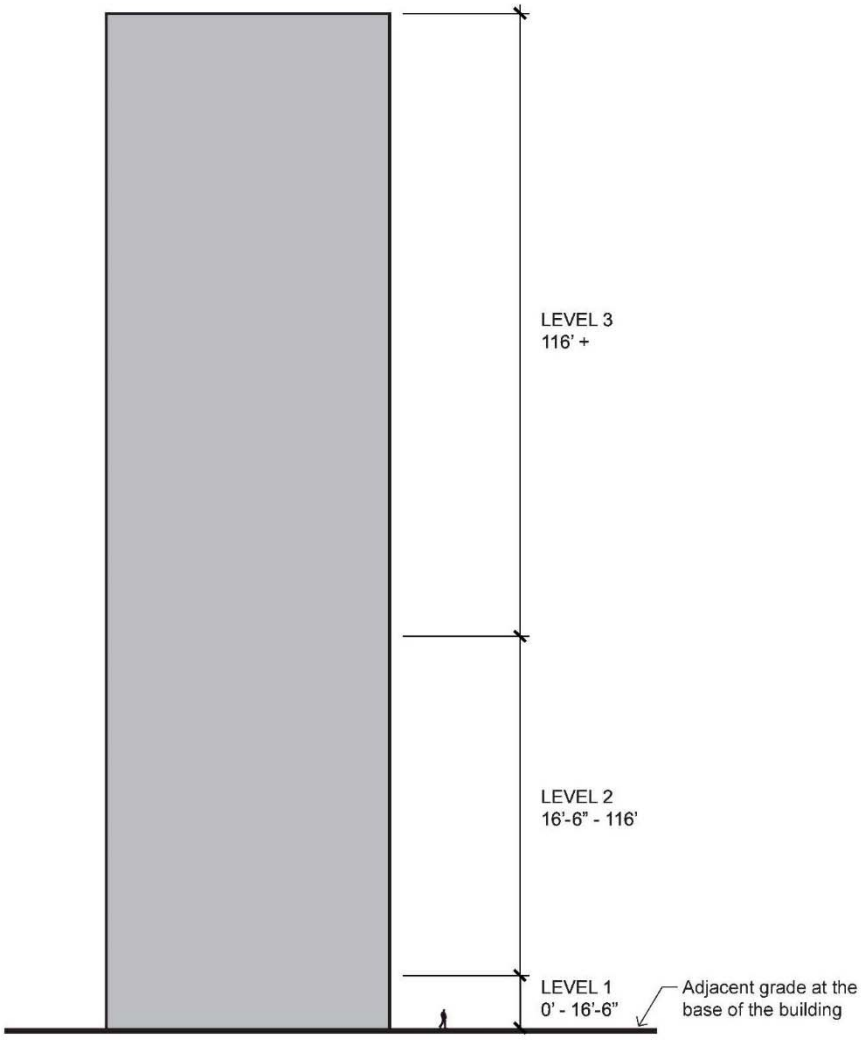
- Vertical Sign Zone 1: between 0 feet and 16 feet 6 inches
- Vertical Sign Zone 2: above 16 feet 6 inches and up to 116 feet
- Vertical Sign Zone 3: above 116 feet

The Applicant proposes that certain sign types be restricted to specific Individual Sign Areas and/or Vertical Sign Zones. For example, Tall Building Signs are proposed only in Vertical Sign Zone 3. Digital signs (Electronic Message Display Signs) are proposed only in Vertical Sign Zone 2. The only digital signs proposed in the State Route-110 (Harbor Freeway) Individual Sign Area are static digital signs; no Full Motion Electronic Message Display Signs would be permitted in the State Route-110 (Harbor Freeway) Individual Sign Area.

Individual Sign Areas



Vertical Sign Zones Diagram



Sign Animation and Illumination

Signs would be illuminated by either internal or external means. Methods of illumination may include, but are not limited to: electric lamps, such as neon tubes; fiber optics; incandescent lamps; LED; LCD; cathode ray tubes exposed directly to view; shielded spot lights; and wall wash fixtures.

The proposed Sign District would contain specific illumination regulations for all signs. Illuminance from signs would not exceed 3 foot-candles (32.3 lux) at the property line of the nearest residentially zoned property located outside the proposed Sign District.

All internally illuminated signs would have a brightness of no greater than 600 candelas per square meter at night, which includes the period from 20 minutes prior to sunset until 20 minutes after sunrise, and a daytime brightness of no greater than 6,000 candelas per square meter.

Nighttime luminance values apply from 20 minutes prior to sunset until 20 minutes after sunrise. All internally illuminated signs would smoothly transition at a consistent rate from daytime maximum luminance to the permitted maximum nighttime luminance beginning 45 minutes prior to sunset and concluding no later than 20 minutes prior to sunset. The transition from the nighttime maximum luminance to the daytime luminance would begin no earlier than 20 minutes after sunrise and conclude no earlier than 45 minutes after sunrise.

Any sign with the potential to exceed sign luminance of 600 candelas per square meter would include a photocell or equivalent electronic control process that adjusts sign luminance in order to (1) comply with the maximum permitted daytime and nighttime luminance; and (2) to reduce sign luminance (at a rate of no more than 0.25 percent per second) to 600 candelas per square meter at any time when ambient sunlight is less than 100 foot-candles.

All illuminated signs would comply with California Vehicle Code Section 21466.5 and would be shielded, reduced in intensity, or otherwise protected from view such that the brightness of a light source within 10 degrees from a driver's normal line of sight would not be more than 1,000 times the minimum measured brightness in the driver's field of view, except when minimum values are less than 10 foot-lamberts. If minimum values are below 10 foot-lamberts, the source brightness shall not exceed 500 foot-lamberts plus 100 times the angle, in degrees, between the driver's line of sight and the light source.

Externally illuminated signs will incorporate design elements to limit the direct view of the light source surface at all exterior light fixtures to ensure that the light source cannot be seen from adjacent residential properties or the public right-of-way. Such design elements could include one or more of the following: use of light fixtures that comply with the ratings specified in CALGreen Table 5.106.8; use of light fixtures with a focused output where the output angles greater than 20 degrees from beam centerline do not exceed 600 candelas; glare shields and louvers attached to the front face of the light

fixture; and/or architectural screens to conceal the direct view of the light fixtures at the center of adjacent streets at the site boundary to the north, south, east, and west. All light sources, including illuminated signs, would comply with CALGreen (Part 11 of Title 24, California Code of Regulations).

With regard to refresh rate, Electronic Message Display Signs would be limited to one refresh event every 8 seconds, with an instant transition between images. The sign image would remain static between refreshes. The Full Motion Electronic Message Display Signs and Full Motion Electronic Message Display Projecting Signs would permit images or illumination with motion at an unrestricted rate. All other signs would remain static.

The Sign District would comply with all applicable provisions of the Outdoor Advertising Act (Cal. Bus. & Prof. Code Section 5200 et seq.), including without limitation those added by AB 1373.

Sign Hours of Operation

The Sign District proposes to limit hours of operation for Electronic Message Display Signs, Full Motion Electronic Message Display Signs and Full Motion Electronic Message Display Projecting Signs to the time between dawn and 2:00 A.M. Other types of signs would not have restricted hours of operation.

Conceptual Sign Plan

The Applicant has prepared a Conceptual Sign Plan dated September 29, 2017, which is comprised of the Conceptual Sign District Drawings and Conceptual Sign District Matrix which depicts a conceptual implementation of the types, amount, and locations of the proposed signage.

APPENDIX B-1: Conceptual Sign District Matrix dated September 29, 2017

Note: The Conceptual Sign Plan dated September 29, 2017, is comprised of the Conceptual Sign District Drawings and Conceptual Sign District Matrix. The Conceptual Sign District Drawings, which graphically depict the conceptual signs, are on file with the City. The Conceptual Sign District Matrix, which identifies the dimensions, square footage and location of the conceptual signs, is included in this Appendix B-1.

However, because the project evolved as the lighting study was underway, this Lighting Report analyzed light trespass (see Sections 7 and 8 above) based on sign dimensions that vary slightly from those set forth in the Conceptual Sign District Matrix (which is contained in the Conceptual Sign Plan dated September 29, 2017). The sign dimensions utilized by this Lighting Report to calculate and analyze light trespass are set forth in Appendix B-2 (June 28, 2016 Sign Matrix). The difference between the sign dimensions listed in Appendix B-1 (Conceptual Sign Matrix dated September 29, 2017) and those in Appendix B-2 (June 28, 2016 Sign Matrix) is less than a 10% increase or decrease in area. The corresponding increase or decrease in illuminance at the residential property line vertical planes summarized in Table 6 and Table 8 in this Lighting Report will be proportional to the variation in area, and in all locations, less than a 10% increase. This increase in illuminance has no impact on the results of the light trespass evaluation. Thus, the adjustments to the sign areas reflected in Appendix B-1 (Conceptual Sign Matrix dated September 29, 2017), as compared to the dimensions in Appendix B-2 (June 28, 2016 Sign Matrix), do not change the conclusions contained in the Lighting Report that light trespass impacts resulting from the proposed Project illuminated signs at locations where lighting is under review at residential properties are below the significance threshold of 3.0 foot-candles. Variation in the sign dimensions does not have any impact on the Report's glare analysis or conclusions.

CONCEPTUAL SIGN DISTRICT MATRIX

9/29/2017

Metropolis Sign District
Case Number: CPC-2008-4557-SN

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
8th St.	North	Podium	F-1	Full Motion Electronic Message Display Sign			Off Site	13.68	x	58.875	806
8th St.	North	Podium	FP-1	Full Motion Electronic Message Display Projecting Sign			Off Site	19.406	x	10.375	202
8th St.	North	Podium	FP-2	Full Motion Electronic Message Display Projecting Sign			Off Site	19.406	x	10.375	202
8th St.	North	Podium	G-1	Window Sign			On Site	9	x	14	126
8th St.	North	Res. Tower 1	T-1	Tall Building Sign			On Site	15	x	17	255
8th St.	North	Res. Tower 3	T-4	Tall Building Sign			On Site	15	x	85	1,275
8th St.	North	Hotel	T-6	Tall Building Sign			On Site	11	x	77	847
8th St.	North	Podium	W-4	Wall Sign	Tenant Sign		On Site	5	x	12	60
8th St.	North	Podium	W-5	Wall Sign			On Site	2	x	19	38
8th St.	North	Podium	W-6	Wall Sign	Tenant Sign		On Site	2	x	20	40
8th St.	North	Podium	W-7	Wall Sign	Tenant Sign		On Site	2	x	20	40
8th St.	North	Podium	W-8	Wall Sign	Tenant Sign		On Site	2	x	20	40
8th St.	North	Podium	W-29	Wall Sign	Tenant Sign		On Site	5	x	20	100
SUBTOTAL											4,031

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
Francisco St.	East	Res. Tower 1	C-1	Canopy Sign	Tenant Sign		On Site	2	x	12	24
Francisco St.	East	Res. Tower 1	C-2	Canopy Sign	Tenant Sign		On Site	2	x	19	38
Francisco St.	East	Res. Tower 1	C-3	Canopy Sign			On Site	1	x	15	15
Francisco St.	East	Hotel	C-4	Canopy Sign	Tenant Sign		On Site	2	x	20	40
Francisco St.	East	Hotel	C-5	Canopy Sign	Tenant Sign		On Site	2	x	30	60
Francisco St.	East	Podium	C-7	Canopy Sign	Tenant Sign		On Site	2	x	20	40
Francisco St.	East	Podium	C-8	Canopy Sign	Tenant Sign		On Site	2	x	20	40
Francisco St.	East	Podium	F-2	Full Motion Electronic Message Display Sign			Off Site	13.688	x	24.330	334
Francisco St.	East	Hotel	F-3	Full Motion Electronic Message Display Sign			Off Site	21.667	x	57.417	1,245
Francisco St.	East	Podium	G-2	Window Sign			On Site	9	x	11	99
Francisco St.	East	Podium	H-1	Hanging Sign			On Site	5	x	50	250
Francisco St.	East	Podium	H-2	Hanging Sign			On Site	3	x	25	75
Francisco St.	East	Courtyard	M-2	Monument Sign			On Site	3	x	18	54
Francisco St.	East	Podium	MG-1	Multi-Tenant Window Sign	Tenant Sign	6	On Site	47	x	10	470
Francisco St.	East	Podium	MG-2	Multi-Tenant Window Sign	Tenant Sign	12	On Site	47	x	21	987
Francisco St.	East	Podium	MG-3	Multi-Tenant Window Sign	Tenant Sign	6	On Site	47	x	10	470
Francisco St.	East	Podium	MP-1	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MP-2	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MP-3	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MP-4	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36
Francisco St.	East	Podium	MPL-1	Multi-Tenant Pillar Sign	Tenant Sign	4	On Site	5	x	19	95
Francisco St.	East	Podium	MPL-2	Multi-Tenant Pillar Sign	Tenant Sign	4	On Site	5	x	19	95
Francisco St.	East	Podium	MW-1	Multi-Tenant Wall Sign	Tenant Sign	6	On Site	9	x	19	171
Francisco St.	East	Podium	MW-3	Multi-Tenant Wall Sign	Tenant Sign	9	On Site	13	x	37	481
Francisco St.	East	Podium	MW-4	Multi-Tenant Wall Sign	Tenant Sign	6	On Site	13	x	16	208

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
Francisco St.	East	Res. Tower 2	T-5	Tall Building Sign			On Site	15	x	17	255
Francisco St.	East	Podium	W-9	Wall Sign	Tenant Sign		On Site	2	x	25	50
Francisco St.	East	Podium	W-10	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-11	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-12	Wall Sign	Tenant Sign		On Site	3	x	16	48
Francisco St.	East	Podium	W-13	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-14	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-15	Wall Sign	Tenant Sign		On Site	3	x	21	63
Francisco St.	East	Podium	W-16	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-17	Wall Sign			On Site	2	x	19	38
Francisco St.	East	Podium	W-18	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-19	Wall Sign	Tenant Sign		On Site	3	x	21	63
Francisco St.	East	Podium	W-20	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-21	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-22	Wall Sign	Tenant Sign		On Site	3	x	14	42
Francisco St.	East	Podium	W-23	Wall Sign	Tenant Sign		On Site	3	x	20	60
Francisco St.	East	Podium	W-24	Wall Sign			On Site	3	x	20	60
Francisco St.	East	Res. Tower 1	W-25	Wall Sign			On Site	1	x	6	6
Francisco St.	East	Res. Tower 1	W-26	Wall Sign			On Site	4	x	7	28
Francisco St.	East	Hotel	W-27	Wall Sign			On Site	4	x	31	124
Francisco St.	East	Hotel	W-28	Wall Sign			On Site	4	x	29	116
Francisco St.	East	Podium	W-30	Wall Sign	Tenant Sign		On Site	5	x	25	125
Francisco St.	East	Podium	W-31	Wall Sign	Tenant Sign		On Site	4	x	23	92
Francisco St.	East	Podium	W-32	Wall Sign	Tenant Sign		On Site	4	x	24	96
Francisco St.	East	Podium	W-33	Wall Sign	Tenant Sign		On Site	4	x	22	88
Francisco St.	East	Podium	W-34	Wall Sign	Tenant Sign		On Site	4	x	24	96
Francisco St.	East	Podium	W-35	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-36	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-37	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-38	Wall Sign	Tenant Sign		On Site	10	x	5	50
Francisco St.	East	Podium	W-39	Wall Sign	Tenant Sign		On Site	4	x	21	84
Francisco St.	East	Podium	W-40	Wall Sign	Tenant Sign		On Site	4	x	20	80
Francisco St.	East	Podium	W-41	Wall Sign	Tenant Sign		On Site	4	x	20	80
Francisco St.	East	Podium	W-42	Wall Sign	Tenant Sign		On Site	4	x	20	80
SUBTOTAL											7,889

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions (Feet)			Signage Area (Square Feet)
								Height	x	Width	
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	C-6	Canopy Sign	Tenant Sign		On Site	2	x	41	82
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	EW-1	Electronic Message Display Sign			On Site	38.667	x	40.281	1,558
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	F-4	Full Motion Electronic Message Display Sign			Off Site	21.667	x	71.5	1,550
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-5	Multi-Tenant Projecting Sign	Tenant Sign	4	On Site	37	x	8	296
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-6	Multi-Tenant Projecting Sign	Tenant Sign	4	On Site	37	x	8	296
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-7	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-8	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-9	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-10	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 3	T-3	Tall Building Sign			On Site	15	x	85	1,275
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	T-7	Tall Building Sign			On Site	11	x	77	847
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	T-8	Tall Building Sign			On Site	15	x	17	255
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	W-43	Wall Sign			On Site	8	x	25	200
SUBTOTAL											7,351
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-2	Electronic Message Display Sign			On Site	38.667	x	62.167	2,404
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-3	Electronic Message Display Sign			On Site	49	x	12	588
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-4	Electronic Message Display Sign			Off Site	24.5	x	48	1,176
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-5	Electronic Message Display Sign			On Site	24.5	x	48	1,176
State Route 110 (Harbor Freeway)	West	Podium	EW-6	Electronic Message Display Sign			On Site	25.052	x	74.958	1,878
State Route 110 (Harbor Freeway)	West	Podium	EW-7	Electronic Message Display Sign			On Site	25.052	x	37.208	933
State Route 110 (Harbor Freeway)	West	Podium	EW-8	Electronic Message Display Sign			Off Site	55.052	x	14.583	803
State Route 110 (Harbor Freeway)	West	Podium	M-1	Monument Sign			On Site	8	x	5	40
State Route 110 (Harbor Freeway)	West	Podium	MW-2	Multi-Tenant Wall Sign	Tenant Sign	10	On Site	56	x	42	2,352
State Route 110 (Harbor Freeway)	West	Res. Tower 2	T-2	Tall Building Sign			On Site	15	x	17	255
State Route 110 (Harbor Freeway)	West	Res. Tower 1	W-1	Wall Sign			On Site	1	x	15	15
State Route 110 (Harbor Freeway)	West	Res. Tower 1	W-2	Wall Sign			On Site	1	x	15	15
State Route 110 (Harbor Freeway)	West	Podium	W-3	Wall Sign			On Site	4	x	28	112
SUBTOTAL											11,747
GRAND TOTAL											**31,018**

APPENDIX B-2: June 28, 2016 Sign Matrix – Used for Lighting Model

JUNE 28, 2016 SIGN MATRIX
Used for Lighting Model

6/28/2016

Metropolis Sign District
Case Number: CPC-2008-4557-SN

Note: The information on this sign matrix was used to prepare the Illuminance Calculation Data.

Individual Sign Area	Facade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions			Sign Area
								Height	x	Width	
8th St.	North	Podium	W-4	Wall Sign	Tenant Sign		On Site	5	x	12	60 SF
8th St.	North	Podium	W-6	Wall Sign	Tenant Sign		On Site	2	x	20	40 SF
8th St.	North	Podium	W-7	Wall Sign	Tenant Sign		On Site	2	x	20	40 SF
8th St.	North	Podium	W-8	Wall Sign	Tenant Sign		On Site	2	x	20	40 SF
8th St.	North	Podium	FP-1	Full Motion Electronic Message Display Projecting Sign			Off Site	24,802	x	12,208	303 SF
8th St.	North	Podium	FP-2	Full Motion Electronic Message Display Projecting Sign			Off Site	24,802	x	12,208	303 SF
8th St.	North	Podium	F-1	Full Motion Electronic Message Display Sign			Off Site	18,583	x	59,250	1,102 SF
8th St.	North	Podium	W-5	Wall Sign			On Site	2	x	18	36 SF
8th St.	North	Podium	G-3	Window Sign			On Site	11	x	14	154 SF
8th St.	North	Res. Tower 1	T-1	Tall Building Sign			On Site	15	x	17	255 SF
8th St.	North	Res. Tower 3	T-4	Tall Building Sign			On Site	15	x	85	1,275 SF
8th St.	North	Hotel	T-6	Tall Building Sign			On Site	11	x	77	847 SF
8th St.	North	Podium	W-39	Wall Sign	Tenant Sign		On Site	5	x	20	100 SF
SUBTOTAL											4,555 SF

Page 1 of 4

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions			Sign Area	
								Height	x	Width		
Francisco St.	East	Res. Tower 1	C-1	Canopy Sign	Tenant Sign		On Site	2	x	12	24	SF
Francisco St.	East	Res. Tower 1	C-2	Canopy Sign			On Site	3	x	16	48	SF
Francisco St.	East	Res. Tower 1	C-3	Canopy Sign	Tenant Sign		On Site	2	x	19	38	SF
Francisco St.	East	Res. Tower 1	C-4	Canopy Sign			On Site	1	x	15	15	SF
Francisco St.	East	Hotel	C-5	Canopy Sign	Tenant Sign		On Site	2	x	20	40	SF
Francisco St.	East	Hotel	C-6	Canopy Sign	Tenant Sign		On Site	2	x	30	60	SF
Francisco St.	East	Courtyard	M-2	Monument Sign			On Site	3	x	18	54	SF
Francisco St.	East	Podium	MPL-1	Multi-Tenant Pillar Sign	Tenant Sign	4	On Site	5	x	19	95	SF
Francisco St.	East	Podium	MPL-2	Multi-Tenant Pillar Sign	Tenant Sign	4	On Site	5	x	19	95	SF
Francisco St.	East	Podium	MP-1	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36	SF
Francisco St.	East	Podium	MP-2	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36	SF
Francisco St.	East	Podium	MP-3	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36	SF
Francisco St.	East	Podium	MP-4	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36	SF
Francisco St.	East	Podium	MP-5	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36	SF
Francisco St.	East	Podium	MP-6	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	12	x	3	36	SF
Francisco St.	East	Podium	W-9	Wall Sign	Tenant Sign		On Site	2	x	20	40	SF
Francisco St.	East	Podium	W-10	Wall Sign	Tenant Sign		On Site	3	x	15	45	SF
Francisco St.	East	Podium	W-11	Wall Sign	Tenant Sign		On Site	3	x	19	57	SF
Francisco St.	East	Podium	W-12	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-13	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-14	Wall Sign	Tenant Sign			3	x	20	60	SF
Francisco St.	East	Podium	W-15	Wall Sign			On Site	4	x	40	160	SF
Francisco St.	East	Podium	W-16	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-17	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-18	Wall Sign			On Site	2	x	18	36	SF
Francisco St.	East	Podium	W-19	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-20	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-21	Wall Sign			On Site	5	x	23	115	SF
Francisco St.	East	Podium	W-22	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions			Sign Area	
								Height	x	Width		
Francisco St.	East	Podium	W-23	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-24	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-25	Wall Sign	Tenant Sign		On Site	3	x	14	42	SF
Francisco St.	East	Podium	W-26	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-27	Wall Sign			On Site	3	x	20	60	SF
Francisco St.	East	Hotel	W-28	Wall Sign			On Site	3	x	28	84	SF
Francisco St.	East	Hotel	W-29	Wall Sign			On Site	3	x	30	90	SF
Francisco St.	East	Hotel	G-1	Window Sign			On Site	15	x	10	150	SF
Francisco St.	East	Hotel	G-2	Window Sign			On Site	15	x	10	150	SF
Francisco St.	East	Podium	F-2	Full Motion Electronic Message Display Sign			Off Site	15.166	x	24.416	371	SF
Francisco St.	East	Hotel	F-3	Full Motion Electronic Message Display Sign			Off Site	21.667	x	57.417	1,245	SF
Francisco St.	East	Podium	MW-2	Multi-Tenant Wall Sign	Tenant Sign	9	On Site	13	x	34	442	SF
Francisco St.	East	Podium	MW-3	Multi-Tenant Wall Sign	Tenant Sign	6	On Site	13	x	16	208	SF
Francisco St.	East	Podium	MG-1	Multi-Tenant Window Sign	Tenant Sign	6	On Site	48	x	10	480	SF
Francisco St.	East	Podium	MG-2	Multi-Tenant Window Sign	Tenant Sign	12	On Site	48	x	21	1,008	SF
Francisco St.	East	Podium	MG-3	Multi-Tenant Window Sign	Tenant Sign	6	On Site	48	x	10	480	SF
Francisco St.	East	Podium	W-30	Wall Sign	Tenant Sign		On Site	10	x	5	50	SF
Francisco St.	East	Podium	W-31	Wall Sign	Tenant Sign		On Site	10	x	5	50	SF
Francisco St.	East	Podium	W-32	Wall Sign	Tenant Sign		On Site	10	x	5	50	SF
Francisco St.	East	Podium	W-33	Wall Sign	Tenant Sign		On Site	10	x	5	50	SF
Francisco St.	East	Podium	W-34	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-35	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-36	Wall Sign	Tenant Sign		On Site	3	x	20	60	SF
Francisco St.	East	Podium	W-37	Wall Sign	Tenant Sign		On Site	3	x	17	51	SF
Francisco St.	East	Podium	G-4	Window Sign			On Site	10	x	12	120	SF
Francisco St.	East	Res. Tower 2	T-5	Tall Building Sign			On Site	15	x	17	255	SF
Francisco St.	East	Podium	W-40	Wall Sign	Tenant Sign		On Site	21	x	5	105	SF
Francisco St.	East	Podium	W-41	Wall Sign	Tenant Sign		On Site	14	x	4	56	SF
Francisco St.	East	Podium	W-42	Wall Sign	Tenant Sign		On Site	17	x	4	68	SF
Francisco St.	East	Podium	W-43	Wall Sign	Tenant Sign		On Site	19	x	4	76	SF
Francisco St.	East	Podium	W-44	Wall Sign	Tenant Sign		On Site	15	x	4	60	SF
Francisco St.	East	Podium	W-45	Wall Sign	Tenant Sign		On Site	10	x	3	30	SF
SUBTOTAL											7,809	SF

Individual Sign Area	Façade	Sign Location	Sign Reference	Sign Type	Tenant Sign	Multi-Tenant Sign Type (No. of Tenants)	On Site or Off Site	Sign Dimensions			Sign Area	
								Height	x	Width		
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	C-7	Canopy Sign	Tenant Sign		On Site	2	x	41	82	SF
	South	Res. Tower 1	EW-1	Electronic Message Display Sign			On Site	38.667	x	40.281	1,558	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	F-4	Full Motion Electronic Display Sign			Off Site	21.667	x	71.5	1,550	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-7	Multi-Tenant Projecting Sign	Tenant Sign	4	On Site	37	x	8	296	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-8	Multi-Tenant Projecting Sign	Tenant Sign	4	On Site	37	x	8	296	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-9	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-10	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-11	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	MP-12	Multi-Tenant Projecting Sign	Tenant Sign	3	On Site	31	x	8	248	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	W-38	Wall Sign			On Site	8	x	24	192	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 3	T-3	Tall Building Sign			On Site	15	x	85	1275	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Hotel	T-7	Tall Building Sign			On Site	11	x	77	847	SF
James M. Wood Blvd. / 9th St. Off Ramp	South	Res. Tower 1	T-8	Tall Building Sign			On Site	15	x	17	255	SF
SUBTOTAL											7,343	SF
State Route 110 (Harbor Freeway)	West	Podium	M-1	Monument Sign			On Site	8	x	5	40	SF
State Route 110 (Harbor Freeway)	West	Res. Tower 1	W-1	Wall Sign			On Site	1	x	15	15	SF
State Route 110 (Harbor Freeway)	West	Res. Tower 1	W-2	Wall Sign			On Site	1	x	15	15	SF
State Route 110 (Harbor Freeway)	West	Podium	W-3	Wall Sign			On Site	17	x	3	51	SF
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-2	Electronic Message Display Sign			On Site	38.667	x	62.167	2,404	SF
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-3	Electronic Message Display Sign			On Site	49	x	12	588	SF
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-4	Electronic Message Display Sign			Off Site	24.5	x	48	1,176	SF
State Route 110 (Harbor Freeway)	West	Res. Tower 1	EW-5	Electronic Message Display Sign			On Site	24.5	x	48	1,176	SF
State Route 110 (Harbor Freeway)	West	Podium	EW-6	Electronic Message Display Sign			On Site	25	x	75	1,875	SF
State Route 110 (Harbor Freeway)	West	Podium	EW-7	Electronic Message Display Sign			On Site	25	x	37.666	942	SF
State Route 110 (Harbor Freeway)	West	Podium	EW-8	Electronic Message Display Sign			Off Site	49.667	x	14.583	725	SF
State Route 110 (Harbor Freeway)	West	Podium	MW-1	Multi-Tenant Wall Sign	Tenant Sign	10	On Site	50	x	42	2100	SF
State Route 110 (Harbor Freeway)	West	Res. Tower 2	T-2	Tall Building Sign			On Site	15	x	17	255	SF
SUBTOTAL											11,362	SF
GRAND TOTAL											**31,069**	**SF**
Francisco St.	East			Public Art			N/A	15	x	97	1,455	SF
SUBTOTAL											**1,455**	**SF**

APPENDIX C: 2013 California Green Building Standards Code Section 5.106.8

vides helpful information for local governments, residents and businesses. www.opr.ca.gov/docs/ZEV_Guidebook.pdf.

5.106.8 Light pollution reduction. [N] Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the *California Energy Code* for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and
3. Allowable BUG ratings not exceeding those shown in Table 5.106.8, or

Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Section 140.7 of the *California Energy Code*.
2. Emergency lighting.

Note: [N] See also *California Building Code*, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.

5.106.10 Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

TABLE 5.106.8 [N]
MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS[1,2]

ALLOWABLE RATING	LIGHTING ZONE 1	LIGHTING ZONE 2	LIGHTING ZONE 3	LIGHTING ZONE 4
Maximum Allowable Backlight Rating[3]				
Luminaire greater than 2 mounting heights (MH) from property line	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1 – 2 MH from property line	B2	B3	B4	B4
Luminaire back hemisphere is 0.5 – 1 MH from property line	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	B0	B0	B1	B2
Maximum Allowable Uplight Rating				
For area lighting[4]	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	U1	U2	U3	U4
Maximum Allowable Glare Rating[5]				
Luminaire greater than 2 MH from property line	G1	G2	G3	G4
Luminaire front hemisphere is 1 – 2 MH from property line	G0	G1	G1	G2
Luminaire front hemisphere is 0.5 – 1 MH from property line	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code*.
2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.
3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.
4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet *U*-value limits for "all other outdoor lighting."
5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

APPENDIX D: IESNA Light Trespass

The IESNA 10th Edition Lighting Handbook, Table 26.4, Nighttime Outdoor Lighting Zone Definitions

Table 26.4 | Nighttime Outdoor Lighting Zone Definitions

Zone	Outdoor Lighting Situation	Definition
LZ4	High Ambient Lighting	Areas of human activity where the vision of human residents and users is adapted to high light levels. Lighting is generally considered necessary for safety, security and/or convenience and it is mostly uniform and/or continuous. After curfew, lighting may be extinguished or reduced in some areas as activity levels decline.
LZ3	Moderately High Ambient Lighting	Areas of human activity where the vision of human residents and users is adapted to moderately high light levels. Lighting is generally desired for safety, security and/or convenience and it is often uniform and/or continuous. After curfew, lighting may be extinguished or reduced in most areas as activity levels decline.
LZ2	Moderate Ambient Lighting	Areas of human activity where the vision of human residents and users is adapted to moderate light levels. Lighting may typically be used for safety and convenience but it is not necessarily uniform or continuous. After curfew, lighting may be extinguished or reduced as activity levels decline.
LZ1	Low Ambient Lighting	Areas where lighting might adversely affect flora and fauna or disturb the character of the area. The vision of human residents and users is adapted to low light levels. Lighting may be used for safety and convenience but it is not necessarily uniform or continuous. After curfew, most lighting should be extinguished or reduced as activity levels decline.
LZ0	No Ambient Lighting	Areas where the natural environment will be seriously and adversely affected by lighting. Impacts include disturbing the biological cycles of flora and fauna and/or detracting from human enjoyment and appreciation of the natural environment. Human activity is subordinate in importance to nature. The vision of human residents and users is adapted to the darkness, and they expect to see little or no lighting. When not needed, lighting should be extinguished.

The IESNA 10th Edition Lighting Handbook, Table 26.5, Recommended Light Trespass Illuminance Limits

Table 26.5 | Recommended Light Trespass Illuminance Limits

Lighting Zone	Limit in lux[a]	
	Pre-curfew	Post-curfew
LZ4	15	6
LZ3	8	3
LZ2	3	1
LZ1	1	0
LZ0	0.1	0

a. Maximum initial illuminance on a plane perpendicular to the line of sight to the luminaire(s). Plane located at observer position where light trespass is under review. [7]

APPENDIX E: Illuminance Calculation Data

Data presented below is derived from the lighting illuminance calculations prepared as per the methods described in Section 7.2 above. Illuminance data is presented in the following tables with location coordinates defined relative to the elevation and horizontal distance from lower left viewing from the Project site to the vertical plane where light trespass is under review. Grid data is displayed at five feet on center, vertical and horizontal.

ILLUMINATED SIGN TRESPASS ILLUMINANCE
Vertical Plane 1-1 SURFACE 1

HORIZONTAL (FT)		0	10	20	30	40	50	60	70
VERTICAL (FT)	115	2.3	2.2	2.2	2.2	2.1	2.1	2	2
	105	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2
	95	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2
	85	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2
	75	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2
	65	2.3	2.2	2.2	2.1	2.1	2.1	2	2
	55	2.2	2.2	2.2	2.1	2.1	2.1	2	2
	45	2.2	2.2	2.1	2.1	2.1	2	2	2
	35	2.1	2.1	2.1	2.1	2	2	2	2
	25	2.1	2.1	2	2	2	1.9	1.9	1.9
	15	2	2	1.9	1.9	1.9	1.9	1.8	1.8
	5	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.7

ILLUMINATED SIGN TRESPASS ILLUMINANCE
Vertical Plane 1-1 SURFACE 1 (CONTD)

HORIZONTAL (FT)		80	90	100	110	120	130	140
VERTICAL (FT)	115	2	2	1.9	1.9	1.9	1.8	1.8
	105	2	2	1.9	1.9	1.9	1.8	1.8
	95	2	2	2	1.9	1.9	1.8	1.8
	85	2	2	1.9	1.9	1.9	1.8	1.8
	75	2	1.9	1.9	1.9	1.9	1.8	1.8
	65	2	1.9	1.9	1.9	1.9	1.8	1.8
	55	2	1.9	1.9	1.8	1.8	1.8	1.7
	45	1.9	1.9	1.9	1.9	1.8	1.7	1.7
	35	1.9	1.9	1.9	1.8	1.8	1.7	1.7
	25	1.9	1.8	1.8	1.8	1.7	1.7	1.7
	15	1.8	1.8	1.7	1.7	1.7	1.6	1.6
	5	1.7	1.7	1.7	1.7	1.6	1.6	1.5

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 1

HORIZONTAL (FT)		0	10	20	30	40	50	60	70	80	90	100	110	120	130
VERTICAL (FT)	65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
	55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
	45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	35	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
	25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
	15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
	5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 2

HORIZONTAL (FT)		140	150	160	170	180	190	200	210	220	230	240	250
VERTICAL (FT)	65	1.7	1.7	1.6	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.1	1.1
	55	1.7	1.7	1.6	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.1	1.1
	45	1.7	1.6	1.6	1.5	1.4	1.4	1.3	1.2	1.2	1.1	1.1	1.1
	35	1.7	1.6	1.6	1.5	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1
	25	1.7	1.6	1.6	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.1	1.1
	15	1.7	1.6	1.5	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.0
	5	1.6	1.5	1.5	1.4	1.3	1.2	1.2	1.1	1.1	1.1	1.0	0.9

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 2 (CONTD)

HORIZONTAL (FT)		260	270	280	290	300	310	320	330	340	350	360	370
VERTICAL (FT)	65	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.6
	55	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7
	45	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.6
	35	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7
	25	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.6
	15	1.0	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6
	5	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 2 (CONTD)

HORIZONTAL (FT)		380	390	400	410	420	430	440
VERTICAL (FT)	65	0.6	0.6	0.6	0.6	0.5	0.5	0.5
	55	0.6	0.6	0.6	0.6	0.5	0.5	0.5
	45	0.6	0.6	0.6	0.6	0.5	0.5	0.5
	35	0.6	0.6	0.6	0.6	0.5	0.5	0.5
	25	0.6	0.6	0.6	0.6	0.5	0.5	0.5
	15	0.6	0.6	0.6	0.6	0.5	0.5	0.5
	5	0.6	0.6	0.6	0.6	0.5	0.5	0.5

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 3

HORIZONTAL (FT)		450	460	470	480	490	500	510	520	530	540	550	560
VERTICAL (FT)	65	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7
	55	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7
	45	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7
	35	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7
	25	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7
	15	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.7	0.7
	5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 3 (CONTD)

HORIZONTAL (FT)		570	580	590	600	610	620	630	640	650	660	670	680
VERTICAL (FT)	65	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.0
	55	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0
	45	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0
	35	0.7	0.7	0.8	0.8	0.8	0.9	0.8	0.9	1.0	1.0	1.0	1.0
	25	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0
	15	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0
	5	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 3 (CONTD)

HORIZONTAL (FT)		690	700	710	720	730	740	750	760	770	780	790	800
VERTICAL (FT)	65	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5
	55	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.5	1.5
	45	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.5	1.5
	35	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5
	25	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5
	15	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4
	5	1.0	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 3 (CONTD)

HORIZONTAL (FT)		810	820	830	840	850	860	870	880	890	900	910	920
VERTICAL (FT)	65	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0
	55	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.9	1.9	1.9	2.0	2.0
	45	1.5	1.6	1.7	1.7	1.7	1.8	1.8	1.9	1.8	1.9	1.9	2.0
	35	1.6	1.6	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	2.0
	25	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9
	15	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.9
	5	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.9

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 3 (CONTD)

HORIZONTAL (FT)		930	940	950	960
VERTICAL (FT)	65	2.0	2.0	2.1	2.1
	55	2.0	2.1	2.1	2.1
	45	2.0	2.0	2.1	2.1
	35	2.0	2.0	2.1	2.1
	25	2.0	2.0	2.0	2.0
	15	1.9	2.0	2.0	2.0
	5	1.9	1.9	2.0	2.0

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 4

HORIZONTAL (FT)		970	980	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090
VERTICAL (FT)	65	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	55	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	45	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	35	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	25	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	15	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	5	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 2-1 SURFACE 4 (CONTD)

HORIZONTAL (FT)		1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200	1210	1220
VERTICAL (FT)	65	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
	55	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
	45	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
	35	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
	25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
	15	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
	5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 3-1 SURFACE 1

HORIZONTAL (FT)		0	10	20	30	40	50
VERTICAL (FT)	115	0.4	0.4	0.4	0.4	0.4	0.4
	105	0.4	0.4	0.4	0.4	0.4	0.4
	95	0.4	0.4	0.4	0.4	0.4	0.4
	85	0.5	0.4	0.4	0.4	0.4	0.4
	75	0.4	0.4	0.4	0.4	0.4	0.4
	65	0.4	0.4	0.4	0.4	0.4	0.4
	55	0.4	0.4	0.4	0.4	0.4	0.4
	45	0.4	0.4	0.4	0.4	0.4	0.4
	35	0.4	0.4	0.4	0.4	0.4	0.3
	25	0.5	0.4	0.4	0.4	0.4	0.4
	15	0.4	0.4	0.4	0.4	0.4	0.3
	5	0.4	0.4	0.4	0.4	0.4	0.4

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 3-1 SURFACE 2

HORIZONTAL (FT)		60	70	80	90	100	110	120	130	140	150	160
VERTICAL (FT)	115	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
	105	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
	95	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2
	85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2
	75	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
	65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
	55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
	45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2
	35	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2
	25	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
	15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
	5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 3-1 SURFACE 2 (CONTD)

HORIZONTAL (FT)		170	180	190	200	210	220
VERTICAL (FT)	115	0.3	0.3	0.3	0.4	0.4	0.4
	105	0.3	0.3	0.3	0.4	0.4	0.4
	95	0.3	0.3	0.3	0.4	0.4	0.4
	85	0.3	0.3	0.3	0.3	0.4	0.4
	75	0.3	0.3	0.3	0.4	0.4	0.4
	65	0.3	0.3	0.3	0.3	0.4	0.4
	55	0.3	0.3	0.3	0.4	0.4	0.4
	45	0.3	0.3	0.3	0.3	0.4	0.4
	35	0.3	0.3	0.3	0.3	0.4	0.4
	25	0.3	0.3	0.3	0.3	0.4	0.4
	15	0.3	0.3	0.3	0.3	0.4	0.4
	5	0.3	0.3	0.3	0.3	0.3	0.3

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 3-2 SURFACE 1

HORIZONTAL (FT)		0	10	20	30	40	50	60	70	80	90	100	110
VERTICAL (FT)	115	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	105	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	95	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	55	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	45	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	35	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	15	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 3-2 SURFACE 1 (CONTD)

HORIZONTAL (FT)		120	130	140	150	160	170
VERTICAL (FT)	115	0.3	0.3	0.3	0.3	0.3	0.3
	105	0.3	0.3	0.3	0.3	0.3	0.3
	95	0.3	0.3	0.3	0.3	0.3	0.3
	85	0.3	0.3	0.3	0.3	0.3	0.3
	75	0.3	0.3	0.3	0.3	0.3	0.3
	65	0.3	0.3	0.3	0.3	0.3	0.3
	55	0.3	0.3	0.3	0.3	0.3	0.3
	45	0.3	0.3	0.3	0.3	0.3	0.3
	35	0.3	0.3	0.3	0.3	0.3	0.3
	25	0.3	0.3	0.3	0.3	0.3	0.3
	15	0.3	0.3	0.3	0.3	0.3	0.3
	5	0.3	0.3	0.3	0.3	0.3	0.3

ILLUMINATED SIGN TRESPASS ILLUMINANCE

Vertical Plane 3-3 SURFACE 1

HORIZONTAL (FT)		0	10	20	30	40	50	60	70	80	90
VERTICAL (FT)	115	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

	105	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	95	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	75	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	35	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

APPENDIX F: References

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Appendix E
Plan Consistency Analysis

ESA PCR

APPENDIX E

Metropolis Proposed Sign District Plan Consistency Analysis

The Applicant is requesting the establishment of a Sign District, pursuant to Municipal Code Section 13.11. The proposed Sign District (Project) would provide sign regulations relative to signs for the Metropolis Development that would be in addition to regulations set forth in the City's Municipal Code (LAMC), and that would prevail over and supersede certain provisions of the LAMC as specified in the requested Sign District as proposed by the applicant. The adoption of the Sign District, which would be established by Ordinance, would be a land use legislative act that would supersede all City plans and codes, other than the City of Los Angeles General Plan, including the Central City Community Plan. As the Metropolis Mixed-Use Development has been approved and is currently under construction, and the Project is limited to proposed signage, the applicable portions of the General Plan are those that contain policies related to signage and lighting associated with signs. While CEQA only requires a review for consistency with the General Plan, including the Central City Community Plan, this Addendum also reviews the proposed Sign District for its consistency with the Citywide Design Guidelines, the Downtown Design Guide, and Do Real Planning for informational purposes. Since signage can affect the pedestrian environment, which is an important component in the downtown area, discussion of some policies addressing the pedestrian environment have also been included. The following provides an analysis of the applicable policies from these plans.

Central City Community Plan

The Central City Community Plan does not contain policies specific to signage. However, Policy 4-4.1 of the Open Space and Recreation Element contains a policy related to the Downtown pedestrian environment. Therefore, this is addressed below.

Open Space and Recreation	
Policy 4-4.1: Improve Downtown's pedestrian environment in recognition of its important role in the efficiency of Downtown's transportation and circulation systems and in the quality of life for its residents, workers, and visitors.	**Consistent.** As part of the Metropolis Mixed-Use Development, the pedestrian environment will be improved through the provision of landscaping, enhanced sidewalks, and street trees, including a double row of street trees along Francisco Street. The Project being evaluated in this Addendum would establish a Sign District that would ensure that signage is consistent in its design for the various uses and is integrated into the architecture of the building. As can be seen from the visual simulations prepared for the Project, the signs would contribute to a lively pedestrian atmosphere along the street frontages within the Convention Center Sphere of Influence, by having, in part, animated and illuminated signs and graphics that are compatible with the commercial, entertainment, and retail uses in the downtown area. The signs would accentuate the architectural characteristics of the Metropolis Development through the integration of the signs into the architecture of the building. The signs would provide visual interest at the street level and would direct pedestrians to retail or other uses in the Metropolis Development, contributing to a pedestrian friendly and vibrant streetscape.

Downtown Design Guide

The Downtown Design Guide: Urban Design Standards and Guidelines (Downtown Design Guide), adopted June 15, 2009, was created to provide guidance for creating a livable downtown environment, including an emphasis on walkability, sustainability, and transit options. The Downtown Design Guide establishes goals, objectives, standards, and guidelines for project development. The City updated the Downtown Design Guide in June 2017. The Design Guide contains provisions that address signage and is intended to provide design guidance to achieve visually effective and attractive signage throughout downtown. However, the Design Guide acknowledges that it is not intended to supersede regulations of a signage Supplemental Use District for downtown. Accordingly, because the Project consists of a proposed signage Supplemental Use District that would provide regulations and requirements to govern the proposed signage, the signage provisions of the Downtown Design Guide are not directly applicable. Nonetheless, for informational purposes, an analysis of the Downtown Design Guide signage provisions is provided below.

COMPARISON OF THE PROJECT TO THE DOWNTOWN DESIGN GUIDE

A. Conceptual Sign Plan	
1. All projects over 50,000 square feet, or that have more than 50 residential units, shall submit a conceptual sign plan for the entire project during the entitlement phase. The conceptual sign plan shall identify all sign types that can be viewed from the street, sidewalk or public right-of-way. The intent of the conceptual sign plan is to ensure a cohesive, integrated sign program so that all individual tenant signs will attribute to and create strong project identity. The conceptual sign plan will be for information purposes only, and should show general placement on the façade and size.	**Consistent.** The proposed Sign District and the Conceptual Sign Drawings and Sign Matrix provide a master conceptual sign plan (see Project Description as well as Appendix A of this Addendum). The Phase 1 master conceptual sign plan was submitted to the CRA/LA a Designated Local Authority and the Phase 2 master conceptual sign plan was submitted to the Department of City Planning. As can be seen from the visual simulations prepared for the Project, the Project will provide a cohesive, integrated sign program so that all individual tenant signs will attribute to and create strong project identity, as envisioned by the Downtown Design Guide.
B. Signage Guidelines for All Sign Types	
Sign in Context	
1. Signs should be conceived as an integral part of the project design so as not to appear as an afterthought. All signs shall be integrated with the design of the project's architecture and landscaping.	**Consistent.** The signs were designed to be fully integrated with the architecture of the buildings and are appropriately scaled to the buildings' architectural character and size which serve to reinforce the identity of the development. The signage elements also complement the architecture and street level plaza and are positioned to prevent a cluttered appearance and streamline the look of the building
2. As a family of elements, signs should be related in their design approach and convey a clear hierarchy of information.	**Consistent.** The Project would unify the signage thereby establishing that the four towers belong to the same development. The proposed Sign Use District would ensure that signs at the Metropolis Mixed-Use Development would be cohesive in their design and would convey a clear hierarchy of information.
3. The location, size, and appearance of signs should complement the building and should be in character with the Downtown district in which they are located. Compatibility shall be determined by the relationships of the elements of form, proportion, scale, color, materials, surface treatment, overall sign size and the size and style of lettering. The surrounding environment shall be comprised of other nearby signs, other elements of street and site furniture, and adjacent and surrounding properties, including residential areas.	**Consistent.** As can be seen from the visual simulations prepared for the Project, the signs would contribute to a lively pedestrian atmosphere along the street frontages within the Convention Center Sphere of Influence, by having, in part, animated and illuminated signs and graphics that are compatible with nearby commercial, entertainment, sports and retail uses. The signs would accentuate the architectural characteristics of the Metropolis Development through the integration of the signs into the architecture of the building. The signs would provide visual interest at the street level and would direct pedestrians to retail and other uses within the Metropolis Development, contributing to a pedestrian friendly and vibrant streetscape. The signage is in character with the Downtown district in which it is located. The nearby existing sign districts include the Los Angeles Sports and Entertainment District (LASED) Specific Plan (Ord. 174,224), Figueroa & Olympic Sign District (Ord. 182,200), Convention and Event Center Sign District (Ord. 182,281), and Figueroa and Seventh Street Sign District (Ord. 181,637). The pending nearby sign districts include the Figueroa and Olympic South Sign District, Fig + Pico Sign District, Olympia Sign District.
4. Signs should respect residential uses within and adjacent to a project. The intent is to promote a more peaceful living environment without undue impacts upon residential uses. Small signs, no animation, limited lighting and shorter operating hours are appropriate where signs are visible from residences.	**Consistent.** The creation of the Sign Use District would serve to protect residential uses on and off the site from intrusive signage, thereby promoting a more peaceful living environment. The proposed Sign District would limit visual clutter by specifying the location and maximum area of each sign type within the development. As proposed by the applicant, the requested Sign District would limit illumination of the signs and the hours of operation for signs, and would establish refresh rates. A Lighting Technical Report was prepared and is provided in Appendix D of this Addendum. Based on the Lighting Report, impacts resulting from the proposed Project illuminated signs would be less than significant.

5. Except in locations where street trees are not required, no signs shall be located between 14 feet above sidewalk elevation and 40 feet above sidewalk elevation to avoid conflicts with the tree canopy, except where the Applicant demonstrates that no conflict will occur.	**Consistent.** While the requested Sign District proposes to permit the location of signs in this area, the proposed Sign District would meet the intent of this standard. As proposed by the applicant, sign locations along Francisco Street and 8th Street between 14 and 40 feet above the sidewalk elevation would be located so as to avoid conflict with the tree canopy. The trees on Francisco Street will be a staggered double row located within an oversized 26-foot wide pedestrian walk which includes the public sidewalk along Francisco Street, thereby affording unusual space between the tree canopy and the signage. The 8th Street frontage includes minimum 17-foot wide public sidewalk. At these distances, the signs on the third level will be visible to pedestrians. Additionally, street corners and vehicular driveways interrupt the street tree spacing due to required clearances that allow signs within the 14-foot to 40-foot zone to be visible. The eastern portion of the 8th Street frontage does not include street trees due to existing traffic signals for the Ernst & Young parking structure exit which also allows signage to be visible. In addition, the applicant's proposal to locate signs between 14 and 40 feet complement other desired design objectives such as wrapping the parking podium with retail and restaurant uses. These retail uses are located on the first and third levels because the first story retail spaces are double height, resulting in no true second story uses. The entrances to the third level retail and restaurant uses are not visible from the street unless marked by signage at their entrance level. Signage on the exterior of the upper level retail spaces is essential in order for these restaurants and shops to be commercially viable and to engage pedestrians and direct them to upper level uses. In order to create an attractive building façade and have viable above ground retail and restaurants wrapping the multi-story parking podium, the proposed signage within this area is necessary.
Sign Illumination and Animation	
6. Illuminated signs that reflect the individual character of the Downtown districts are encouraged.	**Consistent.** The site is located one block north of the LA Live entertainment complex and the west frontage is along the State Route-110 (Harbor Freeway). This area of downtown is dynamic, entertainment oriented and closest to the Staples Center, LA Live, Convention Center and multiple visitor serving uses. The requested Sign District proposes illuminated signs that would help activate the Project site, establish identity as part of the larger sports and entertainment oriented area, and add to the 24-hour downtown use concept. As indicated above, the requested Sign District proposes to regulate illumination and refresh rates of signs to avoid disturbance of residential uses.
7. Signs shall use appropriate means of illumination. These include: neon tubes, fiber optics, incandescent lamps, cathode ray tubes, shielded spotlights and wall wash fixtures.	**Consistent.** As proposed by the applicant, the requested Sign District would allow for signs illuminated by either internal or external means. Methods of illumination may include, but are not limited to: electric lamps, such as neon tubes; fiber optics; incandescent lamps; LED; LCD; cathode ray tubes exposed directly to view; shielded spot lights; and wall wash fixtures. All signs would be required to comply with applicable illumination standards proposed by the requested Sign District.
8. Signs may be illuminated during the hours of operation of a business, but not later than 2 a.m. or earlier than 7 a.m. Signs for 24-hour uses, such as hotels, are exempt from these limited hours of illumination.	**Consistent.** The applicant proposes that the requested Sign District establish illumination standards and regulations for all signs. As proposed by the applicant, the requested Sign District would limit hours of operation for Electronic Message Display Signs, Full Motion Electronic Message Display Signs and Full Motion Electronic Message Display Projecting Signs to the time between dawn and 2:00 A.M. In the summer months, the proposed Sign District would allow illumination prior to 7:00 A.M., but would also impose limitations on candelas tied to sunrise, and therefore would not result in any lighting impacts. The Metropolis Development contains individual 24-hour uses (e.g. hotel) and the project as a whole is intended to contribute to the 24-hour downtown use concept for the area.

Pedestrian Signs	
1. Signage should reinforce the identity of the project and be visible from the most prominent public corner or frontage.	**Consistent.** The site is bounded by State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north. The proposed Sign District would establish a unified identity for the development and would include signs visible from the most prominent public corners and frontage.
2. Signage should identify the main/visitor entrance or lobby, resident or visitor parking, community facilities, major amenities and commercial uses. These signs should be related in style and material while displaying a clear hierarchy of information.	**Consistent.** The proposed Sign District would include a comprehensive sign program that includes signs to identify entrances, parking, major amenities and commercial uses and to enable people to move easily and comfortably through the development.
3. Pedestrian signs should be appropriately scaled from the primary viewing audience (pedestrian-oriented districts require smaller signage than fast moving automobile-oriented districts).	**Consistent.** The proposed Project signs are appropriately scaled for each of the four Individual Sign Areas and Vertical Sign Zones. For example, along Francisco Street and 8th Street, the proposed signs are generally smaller and oriented to pedestrian traffic, while signage along the James M. Wood Boulevard/9th Street Off-Ramp and State Route-110 (Harbor Freeway) Individual Sign Areas include larger signs appropriate for their frontage.
4. The location, size, and appearance of tenant identification signs should contribute to street activity and enhance the street-level experience that is appropriate to each Downtown district or neighborhood.	**Consistent.** The requested Sign District proposes a mix of multi-tenant wall signs, projecting signs, window signs and pillar signs to identify tenant locations and to encourage easy pedestrian and vehicular passenger identification of the uses on site, many of which are located on upper levels. The proposed signage would assist in integrating the Project site with the sports and entertainment uses of LA Live, the LASED and the Convention Center to the south. The proposed signage would also help activate Francisco Street, encouraging desired pedestrian uses and creating linkage between the sports and entertainment uses to the south and downtown's financial core. The Project would coordinate the location and display of signs so as to enhance the pedestrian realm.
5. For projects that have multiple storefront tenants of similar size, generally all signage should be of the same type (i.e., cut out letters, blade, or neon) and the same relative size and source of illumination. Retail tenants will appear to be different by their store name, font, color and type of retail displays.	**Consistent.** The Project would result in cohesive signage in terms of size relative to the storefront and illumination. The Project would ensure that signs are positioned to be compatible with the architecture and relative to other signs on-site.
6. Historic buildings with ground floor retail shall have signs that do not obscure the architecture, but are integrated into the original or restored storefront elements.	**Not Applicable**. The buildings are new construction.
7. Signs for community facilities should be prominent and easily read by first time visitors.	**Not Applicable**. There are no community facilities on the site.
Building Wall Signs	
8. Mid-rise building signs are only permitted if indicating publicly-accessible uses, rather than private residential or office uses.	**Not Applicable**. The Metropolis Development is a high rise development. As proposed by the applicant, the requested Sign District would establish specific Vertical Sign Zones that would regulate signage within the Metropolis Development.
9. Mid-rise building signs shall be integrated with the design of the project's architecture, landscaping, and lighting, relate to other building signs for the project, and convey a clear hierarchy of information.	**Consistent.** The applicant has designed the proposed Conceptual Sign Plan to integrate with the architecture of the entire site and result in signage that would bring design unity and continuity to the development. Clear signage is important given the site location adjacent to the freeway and in an area with one-way streets. The requested Sign District proposes to create a clear hierarchy of signage and provide way finding for patrons of the uses within the development.

10. Mid-rise building signs should be appropriately scaled from the primary viewing audience (pedestrian-oriented signs require smaller signage than fast moving automobile-oriented districts).	**Consistent.** As proposed by the applicant, the requested Sign District would specify the location and maximum area of each sign type. The Project signs are appropriately scaled for each of the four Individual Sign Areas and Vertical Sign Zones. In general, larger signs are oriented toward frontages with faster moving vehicles and smaller signs are oriented towards the pedestrian areas. For example, along Francisco Street and 8th Street, the signs are generally smaller and oriented to pedestrian traffic. Signage along the James M. Wood Boulevard/9th Street Off-Ramp and State Route-110 (Harbor Freeway) Individual Sign Areas include larger signs appropriate for their frontage.
Tall Building Signs	
11. Location. On a flat-topped building, Tall Building Signs must be located between the top of the windows on the topmost floor and the top of the roof parapet or within an area 16 feet below the top of the roof parapet. On buildings with stepped, non-flat, or otherwise articulated tops, Tall Building Signs may be located within an area 16 feet below the top of the building or within an area 16 feet below the top of the parapet of the main portion of the building below the stepped or articulated top. Tall Building Signs must be located on a wall and may not be located on a roof, including a sloping roof, and may not block any windows.	**Consistent.** As proposed by the applicant the requested Sign District would permit Tall Building Signs only in Vertical Sign Zone 3, which is above 116 feet from the ground elevation. The towers have an articulated top, and thus are not flat-topped. The Tall Building Signs are located on the façade in a manner that integrates the signage with the architectural spacing of the curtain wall horizontal mullions and the façade panels. A majority of each proposed Tall Building Signs is located within the 16-foot area. The proposed Tall Building Signs would be located on the walls of the buildings and would not block any windows.
12. Maximum Sign Area. A Tall Building Sign may not occupy more than 50% of the area in which the sign may be located on a single building face or 800 square feet, whichever is less and may include only a single line of text.	**Inconsistent.** The Conceptual Sign Plan proposes eight Tall Building Signs, ranging in size from 255 square feet to 1,275 square feet. Three Tall Building Signs are proposed to be located on each of the 8th Street and the James M. Wood Boulevard/9th Street Off-Ramp Individual Sign Areas and one Tall Building Sign on the Francisco Street and State Route-110 (Harbor Freeway) Individual Sign Areas. Under the Conceptual Sign Plan, four of the Tall Building Signs are proposed to be 255 square feet, two are proposed to be 847 square feet, and two are proposed to be 1,275 square feet. Some Tall Building Signs are proposed to include a single line of text. Although several of the Tall Building Signs are proposed to exceed the 800 square foot threshold, given the height of the buildings (and, hence the distance from the viewer) and the substantial size of the buildings, that one-size-fits-all threshold is not salient. While the proposed Conceptual Sign Plan is inconsistent with this criteria of the Downtown Design Guide, the adoption of the proposed Sign District would ensure that the proposed Tall Building Signs are consistent with the intent and purpose of this criteria of the Downtown Design Guide.
13. Number of Tall Building Signs. A building may have no more than two Tall Building Signs on any two sides of the building. In the case of a cylindrical or elliptical building, the building should be considered to have four quadrants, which will in no case exceed 25% of the perimeter of the building. Both Tall Building Signs on a building must be identical in design.	**Consistent.** The proposed Conceptual Sign Plan does not include more than two Tall Building Signs on any two sides of the building. The requested Sign District also proposes to limit the total square footage of Tall Building Signs, and the total square footage of signs in Vertical Sign Zone 3.
14. Materials. Tall Building Signs must be constructed of high quality, durable materials that are compatible with the building materials. Cut-out letters that are individually pin-mounted and backlit are encouraged. Box signs are prohibited.	**Consistent.** The proposed Tall Building Signs would be constructed of high-quality, durable materials that are compatible with the building materials. Cut-out letters or images that are individually pin-mounted and backlit would be used.
15. Orientation. To the extent feasible, Tall Building Signs shall not be oriented toward nearby residential neighborhoods.	**Consistent.** The Metropolis Development is a mixed-use project, located in a mixed-use area. The project site and vicinity have a zone designation of C2-4D and a few lots to the south have a LASED zone designation. There are no residential buildings adjacent to the site. The nearest multi-family residential use is located approximately 140 feet south of the northwest corner of James Wood Boulevard and Georgia Street. For the Tall Building Signs located on the south facing building elevations, it is not feasible to orient these signs entirely away from residential uses to the south; however, the distance between these signs and the residential uses would minimize their visibility and the Lighting Report concludes that the Project would result in less than significant lighting impacts to sensitive receptors.

16. Flexibility. Tall Building Signs shall be designed to be changed over time.	**Consistent.** As proposed by the applicant, the requested Sign District would permit changes to the Tall Building Signs over time and would permit the use of new technologies and materials that meet the requirements of the proposed Sign District. The type of signage would enable the signs to be changed.
17. Other Guidelines. Tall Building Signs are encouraged to meet the following guidelines: • The use of symbols, rather than names or words. • Tall Building Signs should be integrated into the architectural design of the building. • Nighttime lighting of Tall Building Signs and distinctive building tops should be integrated. Lighting of Tall Building signs should include backlighting that creates a "halo" around the skylight sign. Backlighting may be combined with other types of lighting.	**Inconsistent.** The proposed Tall Building Signs would be integrated into the architectural design of the buildings. The Tall Building Signs would include a mix of symbols and text. Some of these signs would include a single line of text. The Tall Building Signs would include LED-lighting. While the proposed Conceptual Sign Plan is inconsistent with this criteria of the Downtown Design Guide, the adoption of the proposed Sign District would ensure that the proposed Tall Building Signs are consistent with the intent and purpose of this criteria of the Downtown Design Guide.

Citywide Design Guidelines

The Commercial Citywide Design Guidelines include general guidelines related to signs, many of which do not apply to the downtown environment or large mixed-use projects such as the Metropolis Development. Nonetheless, these signage guidelines are discussed below for informational purposes.

COMPARISON OF THE PROJECT TO THE CITYWIDE DESIGN GUIDELINES RELATING TO SIGNS

Building Signage Placement	
1. In general, a maximum of one business identification wall sign should be installed per business frontage on a public street. Rarely should more than one business identification wall sign be utilized per storefront.	**Consistent.** Signs would be consistent with and incorporated into the Project's architecture. The requested Sign District's proposed limitation on sign square footage and location would generally preclude multiple signs for individual tenants and the proposed Conceptual Sign Plan avoids a cluttered appearance. Because the Project encompasses a full city block, some larger tenants and tenants located on upper floors may require more than one business identification wall sign on the Project. However, the Conceptual Sign Plan is not designed to provide multiple signs for individual "storefronts."
2. Locate signs where architectural features or details suggest a location, size, or shape for the sign. Place signs so they do not dominate or obscure the architectural elements of the building or window areas.	**Consistent.** The Project proposes to allow signage in various forms, including Electronic Message Display Signs, Full Motion Electronic Message Display Signs, Canopy Signs, Wall Signs, and Multi-Tenant Wall Signs. The requested Sign District would support an active street front experience on Francisco Street and 8th Street that would mix art and signage graphic components. As shown in Figures 6 through 11 of this Addendum, signs would be consistent with and incorporated into the Project's architecture and would not obscure or dominate the buildings architectural elements.
3. Include signage at a height and of a size that is visible to pedestrians and facilitates access to the building entrance.	**Consistent.** All identification and wayfinding signs would be designed to be visible to pedestrians and facilitate access to building entrances.
4. In commercial and mixed-use buildings with multiple tenants, develop a coordinated sign program establishing uniform sign requirements that identify appropriate sign size, placement, and materials.	**Consistent.** Pursuant to the provisions of Chapter I, Article 3, Section 13.11 of the Municipal Code, the Project would establish the proposed Sign Use District for the development. As proposed by the applicant, the requested Sign District would establish regulations governing size, placement and materials and would authorize the Conceptual Sign Plan, which proposes a coordinated sign program for the mixed-use development.

Building Signage Materials	
1. At large retail developments, provide maps and signs in public spaces showing connections, destinations, and locations of public facilities such as nearby transit stops.	**Not Applicable**. The Metropolis Development is mixed use project, not a large retail development, such as a shopping center. Nonetheless, the proposed Conceptual Sign Plan includes signage to facilitate wayfinding and access.
2. Limit the total number of colors used in any one sign. Small accents of several colors make a sign unique and attractive, but competition of many different colors reduces readability	**Consistent**. As proposed by the applicant, the requested Sign District would regulate all signs with standards governing allowable sign types, locations, maximum size or coverage, hours of operation, and type of animation or controlled refresh rates. Project Permit Compliance and Building Permit review would ensure compliance with applicable standards and requirements.
3. Limit text on signs to convey the business name or logo. Eliminate words that do not contribute to the basic message of the sign.	**Generally Consistent.** The proposed Conceptual Sign Plan and the applicant's proposed limitations on square footage will discourage extraneous words that do not contribute to the basic message of the sign. As proposed by the applicant, the requested Sign District would permit both on-site and off-site signage.
4. Select sign materials that are durable and compatible with the design of the façade on which they are placed.	**Consistent**. Sign materials would be durable and compatible with the design of the façade on which they are placed.
5. Illuminate signs only to the minimum level required for nighttime readability.	**Consistent.** As proposed by the applicant, the requested Sign District would provide regulations for lighting and limits nighttime luminance to 600 candelas per square meter and daytime brightness to 6,000 candelas per square meter. The proposed Sign District would also address lighting transition. The Project would comply with LAMC Section 14.4.4, which requires that illuminance from signs not exceed 3 foot-candles at the property line of any residentially zoned property.
Lighting and Security	
1. Use ornamental lighting to highlight pedestrian paths and entrances to contribute to providing for a comfortable nighttime strolling experience while providing security by including after-hours lighting for storefronts.	**Not Applicable.** Ornamental and security lighting are not applicable to the Project, which is limited to signage for the previously approved Metropolis Development. However, sign lighting will contribute to a comfortable nighttime strolling experience and facilitate wayfinding.
2. Install lighting fixtures to accent and complement architectural details. Shielded wall sconces and angled uplighting can be used at night to establish a façade pattern and animate a building's architectural features.	**Not Applicable.** Architectural lighting is not applicable to the Project, which is limited to signage for the previously approved Metropolis Development. However, signage is integrated with building architecture and signage lighting will complement architectural details.
3. Utilize adequate, uniform, and glare-free lighting, such as dark-sky compliant fixtures, to avoid uneven light distribution, harsh shadows, and light spillage onto adjacent properties.	**Consistent.** As proposed by the applicant, the requested Sign District would regulate Illumination for signs and requires that signs incorporate design elements to limit the direct view of the light source surface at all exterior light fixtures to avoid spillage onto adjacent properties.

Walkability Checklist

The City Planning Commission's Do Real Planning contains guidelines intended to set the City on a course toward sustainability. Guideline 1, Demand a Walkable City, has led to the development of the Walkability Checklist. Because signage can affect the pedestrian environment, the Walkability Checklist contains objectives and goals that are specific to building signage and lighting. The table below provides an analysis of the relevant objective and goals.

COMPARISON OF THE PROJECT TO THE OBJECTIVES AND GOALS OF THE WALKABILITY CHECKLIST

Building Signage and Lighting	
Objective: Strengthen the pedestrian experience, neighborhood identity and visual coherence with the use of building signage and lighting.	**Consistent.** The Project requests the creation of a proposed Sign District to permit signage that would reinforce the pedestrian character of the streets surrounding the Project Site consistent with the vibrant and colorful signage of surrounding uses. The signs along pedestrian oriented frontages would be of a size that contribute to the human scale and would provide easy identification for pedestrians. The Project proposes to establish a visual coherence through the creation of a Sign District which includes regulations for the location, type, and size of signs.
Goals	
Create visual cues for pedestrians.	**Consistent.** The Project proposes signage located at street level and otherwise visible to visitors to the development in order to provide information relative to building identification, wayfinding, and parking.
Complement the character of nearby buildings and the street.	**Consistent.** The Project would consist of building and tenant identification, and both static and animated digital display signs. These signs would be consistent with signage for similar buildings in the nearby downtown area, which includes LA Live, Staples Center, the LASED and the Convention Center.
Add human scale to the environment.	**Consistent.** The Project would result in well-placed signage to clearly direct patrons to entrances and exits and on-site uses. The Project would provide for pillar and monument signs to aid in wayfinding to uses located on the upper levels of the building. The signage located at the street level would contribute to the human scale, as well as the vibrancy, of the development.

Based on the analysis above, the Project would not conflict with applicable land use plans, policies or regulations. Accordingly, the Project would not result in new or substantially more severe significant impacts compared to the Approved Project.

Appendix F-1
LADOT Letter Dated April 17, 2017

ESA PCR

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

899 S. Francisco St
DOT Case No. CEN 12-40371

Date: April 17, 2017

To: Luciralia Ibarra, Senior City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **899 S. FRANCISCO STREET METROPOLIS MIXED-USE PROJECT – SIGNAGE PROGRAM**

The purpose of this memorandum is the review the Metropolis Sign District proposal submitted to the Department of Transportation's (DOT) on March 15, 2017. The goal of DOT's review is to ensure that a high level of safety for all users of a roadway is maintained by regulating the use of billboards or digital displays on locations where a motorist's attention needs to be elevated or where DOT needs to convey important information to motorists on official traffic signs. Digital displays should be avoided on roadway sections with high task demands requiring motorists to be fully alert. DOT has determined that none of the proposed signs or displays would result in a hazardous condition caused by distracting driving. DOT made this determination by checking if approaching motorists were confronted with high task demand conditions such as a horizontal curve, lane drop, merge or weave area, or changeable message sign. No such condition existed.

If you have any questions, please call me at (213) 972-8476.

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c: Taimour Tanavoli, Case Management, DOT
George Rhyner, Crain and Associates

Appendix F-2
Traffic Hazards Assessment

ESA PCR

METROPOLIS SIGN DISTRICT

TRAFFIC HAZARDS ASSESSMENT

INTRODUCTION

The Metropolis Mixed-Use Development (the "Development"), is currently being constructed in the City of Los Angeles' (the "City") Central Business District on a site in the northeast quadrant of the James M. Wood/9th Street Interchange to State Route-110 (the Harbor Freeway). Greenland LA Metropolis Development II, LLC (the "Applicant") requests a Sign District ("Sign District") for the Development that, if adopted by the City, would allow, among other things, digital signs to be located on the buildings and the parking structure of the Development. Crain & Associates has prepared this Traffic Hazards Assessment to review the digital signage that would be allowed by the requested Sign District as proposed by the Applicant and evaluate its potential to result in traffic hazards. This Traffic Hazards Assessment considered the Applicant's Proposed Metropolis Sign District Project Description (the "Project Description") and its proposed regulations, including without limitation the refresh rate proposed for Commercial Electronic Variable Message Signage (CEVMS) facing the State Route-110 (Harbor Freeway), as well as the Conceptual Sign Plan dated September 29, 2017, referenced in the Project Description.

This Traffic Hazards Assessment begins by reviewing the Project Description and the applicable proposed regulations. It then reviews the literature to determine potential traffic hazards associated with digital signage and discern the criteria against which to assess the proposed Sign District's potential for introducing traffic safety hazards. This Traffic Hazards Assessment then reviews the requested Sign District as proposed by the Applicant to determine if the Sign District, if adopted, could cause significant traffic hazards. The State Route-110 (Harbor Freeway) has the highest vehicle speeds and highest vehicle traffic volume facility in vicinity of the Sign District, and accordingly has the highest potential for serious injury or fatality crashes. This freeway is also immediately adjacent to the Development. Therefore, this report concentrates on potential hazards the requested Sign District could introduce on the State Route-110 (Harbor Freeway).

This Traffic Hazards Assessment is based, in part, on information provided in a Lighting Technical Report, prepared by Francis Krahe & Associates, Inc. and dated February 20, 2018 (the "Lighting Report"), which is contained as Attachment A. Crain & Associates provided input into the locations studied in the Lighting Report to evaluate potential impacts on State Route-110 (Harbor Freeway) drivers. This Traffic Hazards Assessment also analyzes the potential for the proposed Sign District to attract driver focus that is not associated with the light output of the proposed Sign District signs.

METROPOLIS DESCRIPTION

Approved Metropolis Development

The Development site is approximately 6.3 acres (275,751 s.f.) in size, and encompasses a full city block in Downtown Los Angeles, California (the "Development Site"). The Development Site is bounded by the State Route-110 (Harbor Freeway) on the west, the James M. Wood/9th Street off-ramp from the northbound State Route-110 (Harbor Freeway) on the south, Francisco Street on the east, and 8th Street on the north. The Development is a two-phased project. Phase 1, located in the southern portion of the Development Site, includes an 18-story, 350-room hotel building with up to 4,527 square feet of commercial uses, a 38-story residential building with up to 310-residential condominium units and up to 2,617 square feet of commercial uses and a motor court serving both buildings fronting along Francisco Street. Phase 2, located in the northern portion of the Development site, includes 40-story and 56-story residential buildings containing up to 1,250 residential condominium units in total and up to 67,107 square feet of commercial uses, currently under construction. Parking was approved to be provided in up to four levels of subterranean parking and up to eight levels of above grade parking. Phase 1's hotel podium includes retail uses, a restaurant, meeting rooms, fitness gym, and ballrooms with an outdoor amenity deck atop level four. The hotel parking is located in two subterranean levels. Phase 1's residential building includes a podium which contains ground level retail and up to five levels of parking and two levels of subterranean parking with an outdoor amenity deck atop level five. The Phase 2 podium includes two floors of double-height retail and restaurant uses facing Francisco Street and 8th Street beneath the Phase 2 towers. The Phase 2 podium section beneath the residential towers will also contain two levels of subterranean parking and up to eight levels of above grade parking between the State Route-110 (Harbor Freeway) and the retail and restaurant uses. The podium beneath the hotel tower will have restaurants and other amenities and two levels of subterranean parking.

Proposed Sign District

The Applicant proposes a Sign District, that would be established by ordinance, and that is described in Appendix A to the Lighting Report. The signs proposed by the proposed Sign District include the following sign types:

- Wall Sign
- Window Sign
- Monument Sign
- Canopy Sign

- Electronic Message Display Sign
- Full Motion Electronic Message Display Projecting Sign
- Full Motion Electronic Message Display Sign
- Multi-Tenant Wall Sign
- Multi-Tenant Window Sign
- Multi-Tenant Projecting Sign
- Multi-Tenant Pillar Sign
- Tall Building Sign
- Hanging Sign

The Electronic Message Display Sign is an electronic display sign that changes content at regular intervals (on a frequency referred to as the "refresh rate") but remains static in between these content changes. Such signs are known in the literature as Commercial Electronic Variable Message Signage (CEVMS). The Full Motion Electronic Message Display Sign and Full Motion Electronic Message Display Projecting Sign are electronic display signs that contain content that may change with unlimited frequency, and may include moving images, scrolling and animation. The other signage types are non-digital signs. The Applicant's proposed Sign District also references the Conceptual Sign Plan dated September 29,2017, which is comprised of the Conceptual Sign District Drawings (included as Attachment B) and the Conceptual Sign District Matrix (included as Appendix B-1 of the Lighting Report).

REGULATORY REVIEW

The Applicant proposes that the requested Sign District include off-site signs to be installed on the Development, as well as signs for on-site businesses. Off-site advertising signs (signage that does not advertise the business conducted, services rendered or goods produced or sold upon the property where the sign is located) along highways are generally subject to state and federal laws and regulations. The California Outdoor Advertising Act (California Business and Professions Code Sections 5200 et seq.) regulates outdoor advertising, including off-site signage, but authorizes the City of Los Angeles to permit on-site and off-site signage adjacent to the freeway in certain geographic areas, including the Development Site, provided such signage meets specified conditions and requirements; see Cal. Bus. & Prof. Code §5272.2 (added by AB 1373, attached hereto as Attachment C). The Sign District as proposed by the Applicant would comply with the Outdoor Advertising Act, including the provisions of AB 1373.

The California Vehicle Code also addresses potential glare from highway adjacent signage (such as that proposed by the Sign District), which could impair the vision of drivers by limiting the brightness of signs based on their relation to the highway. See California Vehicle Code §21466.5. As proposed by the Applicant, the requested Sign District would expressly require

that all freeway facing signs comply with these Vehicle Code requirements. As discussed in the Lighting Report, the individual signs included in the Applicant's Conceptual Sign Plan have been analyzed and found to comply with the lighting output and other limitations of California Vehicle Code Section 21466.5.

Therefore, the requested Sign District as proposed by the Applicant has been determined to comply with the applicable regulations regarding traffic hazards.

LITERATURE REVIEW

In order to ensure that traffic safety concerns were properly considered in this Traffic Hazards Assessment, Crain & Associates undertook a review of the extensive research conducted by federal agencies and other national organizations regarding the effects of CEVMS, such as the digital signage proposed by the Applicant, upon the safety of driver operations. As discussed above, CEVMS are electronic display signs that change the display content at regular intervals, on a frequency referred to as the "refresh rate," but remain static in between the changes in content.

The studies and literature reviewed by Crain & Associates are identified and described in Attachment D. The national research approaches the subject utilizing a variety of methodologies. This research includes analysis of actual collision rate changes accompanying implementation of CEVMS. It also includes analysis of controlled driver simulation experiments, which monitored driver eye movements (glances and fixations) for sites with and without CEVMS. As described in more detail in Attachment D, two factors were consistently identified in the studies and literature as concerns that may adversely influence driver behavior. The first is related to potential glare from the CEVMS which could reduce the visibility of traffic signs, such as official traffic signs warning of hazards. A second concern is the potential for CEVMS to attract driver focus such that drivers fail to pay attention to the "task at hand" of operating their motor vehicle safely. The Federal Highway Administration (FHWA) utilized the 2-second time period as the length of time at which driver focus on an off-roadway item becomes a safety hazard. (See "Drivers Visual Behavior In The Presence Of Commercial Electronic Message Signs (CEVMS)" FHWA, September 2012). The FHWA study concluded that the longest glance durations at CEVMS and standard billboards were less than 1.4 seconds and therefore, less than the 2-second criteria.

It should be noted that the individual study specific conclusions are not consistent in documenting the degree of hazard presented by CEVMS, and the literature concludes that further study is needed. Further, the studies do not address the degree to which CEVMS parameters, such as refresh rate, affect the degree of hazard.

While the literature review is inconclusive as to whether CEVMS, such as the signs in the proposed Sign District, affects driver behavior and does or does not increase traffic crashes, the glare and distraction factors are listed in the literature as the most significant potential vehicle hazards that could result from CEVMS. It is therefore reasonable to assume that these two factors are the most significant potential traffic risks posed by CEVMS, such as that proposed by the Sign District, based on the information available to date. Accordingly, these two factors are analyzed below with respect to the proposed Sign District.

HAZARD IMPACT SIGNIFICANCE CRITERIA

As discussed above, the literature review identified two factors that can be used to assess when the signage impacts present an unsafe condition, and therefore are significant. The two criteria are:

- If glare from signage causes drivers not to be able to comfortably discern the official highway traffic signs and other control devices; and
- If distraction by signage causes drivers to remove their attention for two or more seconds from the "task at hand" of driving their vehicle.

GLARE ANALYSIS

The Lighting Report reviewed the proposed signs of the requested Sign District for potential glare preventing drivers from being able to comfortably discern the official traffic control devices. The Lighting Report first evaluated the consistency of the Applicant's proposed Sign District with State of California requirements regarding glare. As discussed above, the Lighting Report concluded that, as proposed by the Applicant, the Sign District would require that signs comply with the requirements set forth in California Vehicle Code Section 21466.5, which addresses potential glare from lighted signs near freeways. These Vehicle Code requirements were established to prevent signs from creating glare hazard. Therefore, it can be concluded that the proposed signs will not present a glare hazard to State Route-110 (Harbor Freeway) drivers.

The Lighting Report conducted an additional analysis of several critical receptor site locations to consider the potential for glare from the proposed Sign District signage to affect drivers on State Route-110 (Harbor Freeway). As discussed in the Lighting Report, the glare analysis was based on an evaluation of impacts at critical locations (receptor sites) where Sign District signage could potentially interfere with traffic signage on the State Route-110 (Harbor Freeway). The southbound State Route-110 (Harbor Freeway) segments north of the Development Site and northbound segments south of the Development Site were chosen by lighting specialists at Francis Krahe & Associates in consultation with Crain & Associates, and thoroughly reviewed in the Lighting Report. The locations chosen as receptor sites are shown in the Lighting Report. The Lighting Report analysis was prepared, in part, in order to evaluate the potential of proposed

signage of the requested Sign District to contribute to vehicle hazards from glare at these critical locations.

The most potentially impacted driver decisions for southbound drivers were associated with lane selection on the approach to the 8th/9th Street ramps and the Interstate-10 (Santa Monica Freeway) Interchange. For northbound drivers, the most potentially impacted driver decision points were for the James M. Wood Boulevard/9th Street off-ramp. (Figure 2 in the Lighting Report shows the receptor site locations.) Given the upstream proximity of the northbound State Route-110 (Harbor Freeway) James M., Wood/9th Street off-ramp to areas of proposed Sign District signage, receptor site locations were selected that represent decision points regarding vehicle speed as well as lane selection. Determinations of driver decision points included consideration of the braking sight distance from the warning sign indicating the safe speed on the curving segment of the northbound James M. Wood Boulevard/9th Street off-ramp. To be conservative in selecting the decision point for each maneuver, a 55 MPH speed was assumed for the vehicles. The Lighting Report concluded that the proposed signage would not result in significant glare at the critical driver decision points. The Lighting Report at the end of the Lighting Analysis (Section 7.2-6) states:

> The evaluation of the Project sign brightness presented above demonstrates that the Project sign impacts resulting from the proposed Project signs at the position where light is under review are less than significant. The Project illuminated signs conform to the stipulations of the California Vehicle Code and will not introduce a new source of glare.

Therefore, based on the comprehensive review of glare conducted in the Lighting Report, it is concluded that, as proposed by the Applicant, the requested Sign District would not present a glare safety hazard for traffic.

DISTRACTION ANALYSIS

Crain & Associates analyzed the potential for proposed Sign District digital signage to cause driver distraction. Based on the literature review described in Attachment D, Crain & Associates identified the threshold for potential driver distraction as the removal of a driver's attention from the roadway for a period of two (2) seconds or longer. As stated above, the FHWA utilized the 2-second time period as the length of time at which driver distraction from an off-roadway item becomes a distraction and safety hazard. The 2-second time is also consistent with the American Association of State Highway and Transportation Officials (AASHTO)'s recommendation that highway design allow for 2.5 seconds between an event first being visible and brakes being applied. (See "A Policy on Geometric Design of Highways and Streets," 2001, 6th Edition). Therefore, visibility from a freeway for 2 seconds or greater is considered as presenting a potential distraction for drivers, and was utilized in this analysis.

Distractions for drivers of low speed or stopped vehicles due to congestion on a freeway do not present a safety hazard by causing fatal or serious injury collisions. Therefore, travel at the posted speed limit was selected as an appropriate assumption for a stopping time analysis. The posted speed limit for State Route-110 (Harbor Freeway) north of the Interstate -10 (Santa Monica Freeway) is 55 MPH. That speed limit correlates to 161 feet of travel in 2 seconds. Therefore, an analysis was conducted to determine if any of the signs in the Conceptual Sign Plan would remain visible and could attract continued focus for greater than a 161 foot section of State Route-110 (Harbor Freeway). To better assess the ability of freeway drivers to see and potentially have focus attracted by the proposed Sign District signs, Development visibility from a series of freeway receptor sites, with official highway signs directing drivers concerning the proper lane selection and safe speed, was analyzed. (See Figure 34 in the Lighting Report for receptor site locations.) The Lighting Report identified ten locations, including critical State Route-110 (Harbor Freeway) southbound main line locations and State Route-110 (Harbor Freeway) northbound locations leading to the James M. Wood/9th Street off-ramp, where the Sign District signs may be visible and thus could potentially cause glare disrupting the drivers' ability to comfortably discern the official highway sign's message.

A review of the figures in the Lighting Report reveals that proposed Sign District signage would be visible from near the start of the James M. Wood Boulevard/9th Street northbound off-ramp from State Route-110 (Harbor Freeway) and six northbound State Route-110 (Harbor Freeway) receptor locations were chosen. Existing buildings and landscaping would block the view of the Sign District signage from the northbound freeway lanes prior to 11th Street (at State Route-110 (Harbor Freeway) Receptor Site F 1-a). However, the proposed Sign District signage would become visible before the start of the critical decision areas (more than 161 feet) for the James M. Wood Boulevard/9th Street off-ramp (Receptor Sites F1–b, F1-c, F1-d+176, F1-d and F1-e).

Four of the receptor locations with the proposed Sign District signage being visible are on southbound State Route-110 (Harbor Freeway). At those locations traffic must select lanes at the interchange with Interstate-10 (Santa Monica Freeway) to the south of the Development Site. The signage would be visible to southbound drivers at Receptor sites F 2-a through F 2-d, in the critical area for selecting lanes at the Interstate-10 (Santa Monica Freeway) interchange.

The distances for which signage would be visible and in the scope of vision are approximately 250 feet northbound (prior to the James M. Wood/9th Street off-ramp) and 800 feet southbound (prior to the Development Site no longer being in the driver's cone of vision). Those distances are greater than 161 feet and thus signs could attract driver focus for 2 seconds or longer.

However, as proposed by the Applicant, the requested Sign District would be designed to avoid hazardously attracting driver focus. The Applicant proposes that the requested Sign District require a minimum refresh rate of 8 seconds for all CEVMS facing the freeway. For signs with

refresh rates of 8 seconds or more, driver attention is expected to return to the roadway similar to static signs, which are common along freeways. The literature has not shown static signs to be a significant contributor to collision rates. As stated above, driver eye glance duration for CEVMS and standard billboards was found in the 2012 FHWA study to be less than 1.4 seconds. This, in turn, is less than the 2.0 seconds duration at which a hazard occurs used in the FHWA study. Therefore, as proposed by the Applicant, the requested Sign District's 8-second refresh rate for the CEVMS for signs facing State Route 110 (Harbor Freeway) avoids a potential traffic hazard due to driver distraction.

SUMMARY

Based on a review of the literature, there are two variables relevant to the proposed Sign District that may cause traffic hazards -- glare that does not allow drivers to comfortably see critical roadway elements, and signs that distract driver attention from the roadway. A glare analysis was conducted and concludes that the requested Sign District, as proposed by the Applicant, would be consistent with the California Vehicle Code and would not introduce a significant new source of glare. Likewise, as proposed by the Applicant, the requested Sign District's parameters requiring an 8 second or longer refresh rate for CEVMS signs visible from the State Route-110 (Harbor Freeway) mainline would eliminate potential distractions from the roadway that may be caused by more rapidly changing signs. Therefore, no traffic hazards on State Route-110 (Harbor Freeway) associated with the proposed Sign District have been identified.

ATTACHMENTS

Attachment A – Lighting Report

Attachment B – Conceptual Sign District Drawings

Attachment C – Assembly Bill 1373

Attachment D – Literature Review Findings

In order to avoid duplication of materials in this Addendum, two attachments have been removed from the Traffic Hazards Assessment as these materials are separately provided as appendices to this Addendum. The two attachments are:

- **Attachment A – Lighting Report**

  Please see Appendix D of this Addendum

- **Attachment B – Conceptual Sign District Drawings**

  Please see Appendix A of this Addendum

The Traffic Hazards Assessment, together with all of its attachments, is also on file with the City.

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ATTACHMENT C

ASSEMBLY BILL 1373

Assembly Bill No. 1373

CHAPTER 853

An act to add Section 5272.2 to the Business and Professions Code, relating to outdoor advertising.

[Approved by Governor September 30, 2016. Filed with Secretary of State September 30, 2016.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1373, Santiago. Outdoor advertising: City of Los Angeles.

The Outdoor Advertising Act provides for the regulation by the Department of Transportation of advertising displays, as defined, within view of public highways. The act exempts from certain of its provisions advertising displays that advertise the business conducted or services rendered or goods produced or sold on the property upon which the display is placed, as specified.

This bill would exempt from those provisions of the act advertising displays located in specific geographic areas in the City of Los Angeles if those displays meet specified conditions and requirements, including the adoption of, and compliance with, an ordinance by the City of Los Angeles. The bill would impose certain conditions if an advertising display authorized by this bill is a message center display. The bill would require the department, before the advertising display may be placed, to determine or to request the Federal Highway Administration to determine that the display will not cause a reduction in federal aid funds or otherwise be inconsistent with any federal law, regulation, or agreement between the state and a federal agency or department.

The bill would make the City of Los Angeles primarily responsible for ensuring that a display remains in compliance with the ordinance and the bill's requirements, and would require the city to indemnify and hold the department harmless if the city fails to do so.

This bill would also make findings and declarations as to the need for a special statute relating to the City of Los Angeles.

The people of the State of California do enact as follows:

SECTION 1. Section 5272.2 is added to the Business and Professions Code, to read:

5272.2. (a) With the exception of Article 4 (commencing with Section 5300) and Sections 5400 to 5404, inclusive, this chapter does not apply to any advertising display located in the geographic area in the City of Los Angeles bounded by Wilshire Boulevard on the northeast, S. Figueroa Street

on the southeast, Interstate 10 on the southwest, and State Route 110 on the northwest, or to any advertising display located in the geographic area in the City of Los Angeles on the westerly side of State Route 110 bounded by West 8th Place, James M. Wood Boulevard, and Golden Avenue, if all of the following conditions are met:

(1) The advertising display is authorized by, or in accordance with, an ordinance, including, but not limited to, a specific plan or sign district, adopted by the City of Los Angeles that regulates advertising displays by identifying the specific displays or establishing regulations that include, at a minimum, all of the following:

(A) Number of signs and total signage area allowed.

(B) Maximum individual signage area.

(C) Minimum sign separation.

(D) Illumination restrictions and regulations, including signage refresh rate, scrolling, and brightness.

(E) Illuminated sign hours of operation.

(2) The owner of the advertising display has submitted to the department a copy of the ordinance adopted by the City of Los Angeles authorizing the advertising display and identification of the provisions of the ordinance required under paragraph (1) and the department has certified that the ordinance meets the minimum requirements contained in paragraph (1).

(3) The advertising display will not advertise products, goods, or services related to tobacco, firearms, or sexually explicit material.

(4) (A) Except as otherwise provided in subparagraph (B), there shall be at least 500 feet between any two advertising displays located on the same side of the freeway unless the advertising displays are separated by buildings or other obstructions in a manner that only one of the advertising displays is visible from any given location on the freeway. For purposes of determining compliance with the spacing requirement, the distance between advertising displays shall be measured along the nearest edge of pavement between points directly opposite the advertising displays along each side of the freeway.

(B) The spacing requirement in subparagraph (A) does not apply to an advertising display that advertises only the business conducted, services rendered, or goods produced and sold upon the property upon which the advertising display is located and that, accordingly, is not subject to the requirements of this chapter.

(C) When counting the number of advertising displays and measuring the distance between them for purposes of subparagraph (A), the advertising displays described in subparagraph (B) shall be excluded from the count, and no measurements shall be made relative to the excluded advertising displays for purposes of subparagraph (A).

(5) This chapter does not limit the City of Los Angeles from adopting ordinances prohibiting or further restricting the size, number, or type of advertising displays permitted by this section.

(6) If the advertising display is a message center, the owner of the display shall do one of the following:

(A) Make the message center display available on a space-available basis for use by the department or the Department of the California Highway Patrol for public service messages, including Emergency Alert System (Amber Alert) messages disseminated pursuant to Section 8594 of the Government Code, and messages containing, among other things, reports of commute times, drunk driving awareness messages, reports of accidents of a serious nature, and emergency disaster communications.

(B) Make a message center display not subject to this section that is under the control of the owner of the advertising display available on a space-available basis for public service messages in a location acceptable to the department and the Department of the California Highway Patrol.

(C) Provide funding to the department for the installation of a message center display to accommodate those public service messages, which may include funding as part of mitigation in connection with the approval of development of the property on which the message center display is located by the City of Los Angeles.

(b) (1) Before the advertising display authorized pursuant to subdivision (a) may be placed, the department shall determine that the display will not cause a reduction in federal aid funds or otherwise be inconsistent with any federal law, regulation, or agreement between the state and a federal agency or department.

(2) If the department is unable to make the determination required pursuant to paragraph (1), the department shall request the Federal Highway Administration (FHWA) of the United States Department of Transportation to make the determination. Upon receipt of a determination by the FHWA that makes the finding described in paragraph (1), the advertising display may be placed.

(c) The City of Los Angeles shall have primary responsibility for ensuring that a display authorized pursuant to subdivision (a) remains in conformance with all provisions of the ordinance and of this section. If the City of Los Angeles fails to ensure that the display remains in conformance with all provisions of the ordinance and of this section after 30 days of receipt of a written notice from the department, the City of Los Angeles shall hold the department harmless and indemnify the department for all costs incurred by the department to ensure compliance with the ordinance and this section or to defend actions challenging the adoption of the ordinance allowing the displays.

SEC. 2. Due to unique circumstances concerning the locations of the advertising displays, or proposed advertising displays, set forth in this act and the need for advertising in those locations, it is necessary that an exemption from some of the provisions of the Outdoor Advertising Act be provided for those displays, and the Legislature finds and declares that a general statute cannot be made applicable within the meaning of Section 16 of Article IV of the California Constitution.

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ATTACHMENT D

LITERATURE REVIEW FINDINGS

LITERATURE REVIEWED

Several research papers prepared by national agencies, industry funded researchers, university research groups, and others were compiled into an authoritative compendium:

> Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs. National Cooperative Highway Research Program, April 2009 (NCHRP)

A study was prepared by FHWA in parallel and published in February 2009 that identified areas of concern for further study. That study was:

> The effects of Commercial Electronic Variable Message Signs (CEVMS) on Driver Attention and Distraction: An Update, U. S. Department of Transportation, Federal Highway Administration, February 2009. (FHWA-2009)

The subsequent follow-on study was prepared by FHWA and published in 2012 (the FHWA 2012 Report):

> Driver Visual Behavior In The Presence Of Commercial Electronic Variable Message Signs (CEVMS), U. S. Department of Transportation, Federal Highway Administration, September 2012. (FHWA-2012)

The FHWA 2009 report contains reviews and synopsizes of the extensive research to date and has a Key Factors section. In the concluding paragraph of that section (Page 22 of the report) it states, "In particular, compelling information from the CEVMS used for advertising may conflict with important roadway safety information conveyed by nearby traffic control devices (official signs)." The FHWA-2012 report contains the results of extensive data collection conducted as part of the 2012 study as guided by the 2009 study and the responses to the 2009 report.

Most studies do not differentiate between on-site and off-site signage, but focus on highway-oriented signage. A fourth study addressing on-site signage was also reviewed for the Metropolis Signage Traffic Hazards analysis. That study, which makes extensive use of crash record data from four states, including California, was:

> Statistical Analysis of the Relationship between On-Premise Digital Signage and Traffic Safety, Texas Engineering Extension Service - Texas A & M University System, December 17, 2012. (Texas A & M)

Industry sponsored statistical analyses were conducted of collision rates in areas with CEVMSs. Papers prepared by Tantala and Tantala for The Foundation For Outdoor Advertising Research And Education (FOARE) include:

A Study of the Relationship Between Digital Billboards and Traffic Safety in Cuyahoda County, Ohio, Tantala and Tantala, July 7, 2007, and

An Examination of the Relationship between Digital Billboards and Traffic Safety in Reading, Pennsylvania Using Empirical Bayes Analysis, Tantala and Tantala, Paper presented at April, 2011 Institute of Transportation Engineers conference.

SAFETY FACTORS IDENTIFIED IN THE LITERATURE

The literature does not provide conclusive evidence on whether billboards present safety impacts. The NCHRP, FHWA 2009, FHWA 2012 and Texas A & M studies each concluded that no statistically significant link between CEVMS and traffic safety had been established. Glance duration is used as the primary safety concern in the FHWA 2012 report. However, the NCHRP includes a more complete list of Human Factors Issues section to be considered. Those factors are summarized as follows:

Conspicuity – The ability of other cars, official signs and other traffic control devices, and similar items pertinent to the "Task at Hand" to standout to drivers from the background. The background includes the adverting signs that are analyzed as the Project in this section.

Distraction and inattention – The driver's failure to concentrate on the "Task at Hand" (inattention) for a specific reason (a distraction) or any set of reasons, including unknowns.

Information processing – The period needed to focus on a sign or similar item providing information to a driver and understand that information.

Zeigarnik Effect – The tendency of humans to have anxiety from not finishing a task, such as reading a sign, they have begun.

Brightness and glare – Brightness is the subjective impression of the luminance of a sign or other object, and glare is a physiological response to the object.

Legibility and readability – This is the ability of a sign to complete the "information processing" quickly and efficiently.

Novelty – The likelihood of presenting new information or a new experience for the drivers. The research reviewed in the NCHRP report was influenced by the CEVMSs changing and thereby increasing the potential for novelty.

Sign design, coding and redundancy –Traffic control devices have a degree of information processing efficiency due to their uniformity that is generally not present in CEVMSs. The research results reviewed reflected that factor.

Visual attention – Measured as the amount of time an object is a driver's focus of their sight on an object as indicated by their eye movements. Eye movements and the resulting line of sight was the main consideration of several of the research papers reviewed in the NCHRP report and was the primary factor measured in the research in the 2012 FHWA report.

Positive guidance – The tool used to develop traffic control devices such that drivers are given advance warnings of dangers they are approaching. Loss of positive guidance was also a major factor being considered in the NCHRP reviews.

Moth Effect – The theoretical tendency of drivers to not only alter their gaze but also steer their vehicle toward an object attracting their attention. No evidence is presented on whether this actually occurs.

The reader is referred to the NCHRP report for a more complete discussion of each of these factors and the research into that factor. Although general descriptions are provided in the NCHRP compendium, no definitive methodology to quantify the factors and evaluate the effect on safety hazards is presented in the NCHRP compendium. Glance duration is used in the FHWA 2012 study and elsewhere as a quantifiable measure of distraction, as is discussed below. Crash data is a measure of the overall CEVMSs effect through the above factors, and is also discussed below.

LITERATURE REVIEW CONCLUSIONS

The NCHRP report looked at the result details from reports primarily conducted throughout the U. S., but also conducted in other countries worldwide, such as studies from Canada, England, South Africa, and Australia. The NCHRP study carefully reviews 45 selected studies and concludes that:

> In short, the issue of the role of DBBs [digital bulletin boards] in traffic safety is extremely complex, and there is no single research study approach that can provide answers to all the many questions that must be raised in looking at the issue. When we recognize that not every study is designed well or conducted rigorously, or where inappropriate assumptions are made or questions asked, there should be little wonder why research has not yet been able to fully "resolve" this issue.

The 2009 FHWA report also reviewed the background analyses, having 163 items in its Bibliography. A goal of the 2009 FHWA report was to guide further analyses. The Basic Research Question stated that:

> In summary, the basic research question is whether the presence of CEVMS along the roadway is associated with a reduction in driving safety for the public. The three fundamental methods for answering this question include if there is an increase in crash rates in the vicinity of CEVMSs, if there is an increase in near-crashes or safety surrogate measures in the vicinity of CEVMSs, and if there are excessive eye glances away from the roadway ahead in the vicinity of CEVMSs.

The FHWA-2012 report utilized the FHWA 2009 report as a base, and references 55 sources used in developing its background. Utilizing that previous research, it then developed and conducted a new, state of the art study. The FHWA study used "eye tracking" of participants driving routes with segments containing CEVMSs, traditional billboards and no off-site advertisements to gage the drivers' eye movement responses to CEVMS and to determine if changes in driver behavior induced by CEVMSs may result in an increase in collisions.

The FHWA 2012 paper cites and uses 2 seconds (i.e. 2,000 ms) as the standard for a maximum acceptable glance time. As an example, on Page 1 the paper states "Previous research conducted by the National Highway Traffic Safety Administration (NHTSA) led to the conclusion that taking your eyes off the road for 2 seconds or more presents a safety risk." The length of the glances to standard and changeable message billboards was then compared to this factor.

In the Summary, the FHWA 2012 paper concludes regarding billboards:

> The present data suggest that the drivers in this study directed the majority of their visual attention to areas of the roadway that were relevant to the task at hand (i.e., the driving task). Furthermore, it is possible, and likely, that in the time that the drivers looked away from the forward roadway, they may have elected to glance at other objects in the surrounding environment (in the absence of billboards) that were not relevant to the driving task. When billboards were present, the drivers in this study sometimes looked at them, but not such that overall attention to the forward roadway decreased.

The Texas A & M study makes the following similar conclusion for on-premises signs:

> Based on the analysis performed for this research effort, the authors are able to conclude that there is no statistically significant evidence that the installation of on-premise signs at the locations evaluated in this research led to an increase in crashes.

The Foundation for Outdoor Advertising Research and Education (FOARE) sponsored research analyzing actual crash data to determine if the locations surrounding CEVMS signs were more likely to report crashes than locations without CEVMS. The studies reviewed the reported crash data using a variety of comparison methods

1. Temporal – Were crashes more likely to be reported at the CEVMS location following the sign implementation than they were before the sign implementation;
2. Spatial – Were crashes more likely to be reported at the CEVMS location, controlling for volumes and other such factors, than they were at locations without signs, and
3. Empirical Bayes – Were crashes more likely to be reported than would be expected based on a statistical model using determinants recommended in the Highway Safety Manual of the American Association of State Transportation Officials.

The NCHRP compendium rejects the FOARE and other industry sponsored research for a variety of reasons. Some of the NCHRP reasons for rejecting the FOARE results can be quickly put aside for a safety study. One such reason is that not all crashes are reported. However, the NCHRP compendium raises other questions regarding variables that affect a hazards analysis, including:

- the authors choice of the vision cone for selecting the area for potential caused collisions, and
- selection of the subset of "unbiased" collisions to include small data sample size and choice of statistical methods.

Subsequent FOARE studies include both "biased" and "unbiased" crash data and employ an Empirical Bayes model, but the selection of the area of influence comments, and small data size for each study are not addressed.

The only study identified in the literature research which showed a correlation between a sign implementation and an increase in the crash rate was a 1994 Wisconsin Department of Transportation, District 2 study. That study was for a single sign near County Stadium in Milwaukee. The NCHRP compendium, in its review, noted:

> The study does not address, and clearly did not control for, the possibility that other changes took place in the roadway section studied in addition to the operation of the billboard. For example, changes to the speed limit, police enforcement activities, reporting methods, use patterns, construction, development adjacent to the freeway, and many other factors might have been present and contributed to the crash rates.

Thus, the reviewed literature does not offer a clear determination as to whether CEVMS results in a decrease in traffic safety. The FHWA 2012 study concludes that glances at CEVMS are

under the 2-second threshold. Additionally, a shift in driver focus for a portion of the time from other non-roadway concerns to billboards is not a considered a traffic hazard, and the literature is unable to conclude whether CEVMSs result in shifts of driver attention from the road or other non-road concerns. Varying conclusions are reached regarding whether there is an increase in the number of collisions in the vicinity of signs, and those studies have had significant questions raised in the NCHRP compendium concerning the accuracy of their procedure. Therefore, the literature does not provide a conclusive determination as to how to evaluate if a traffic hazard will occur due to a CEVMS.